SONY

MULTI CHANNEL AV RECEIVER

STR-ZA3000ES/STR-ZA2000ES/STR-ZA1000ES

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- No 3D image appears on the TV. [140]
- No 4K image appears on the TV. [141]
- No image is output from the TV when the receiver is in standby mode. [142]
- The GUI menu does not appear on the TV screen. [143]
- The display panel is turned off. [144]

Sound

- No sound or only a very low level of sound is heard, no matter which device is selected. [145]
- There is severe humming or noise. [146]
- No sound or only a very low level of sound is heard from specific speakers. [147]
- There is no sound from a specific device. [148]
- The left and right sound is unbalanced or reversed. [149]
- Dolby Digital or DTS multi-channel sound is not reproduced. [150]
- The surround effect cannot be obtained. [151]
- A test tone is not output from the speakers. [152]
- A test tone is output from a different speaker than the speaker displayed on the TV

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- No sound is output from the TV when the receiver is in standby mode. [154]

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- The FM reception is poor. [155]
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- A USB device is not recognized. [158]
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- The Control for HDMI function does not work. [162]
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- Reverting to the factory default settings [165]
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See the following topics in this order to start using the receiver properly.

1. Installing speakers
2. Connecting speakers (for STR-ZA3000ES)
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3. Connecting a TV (for STR-ZA3000ES)
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4. Connecting devices with HDMI jacks (for STR-ZA3000ES)
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6. Connecting the receiver to the network (for STR-ZA3000ES)
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7. Attaching the front cover onto the front panel
8. Inserting batteries into the remote control
9. Turning on the receiver
10. Setting up the receiver using the Easy Setup

Supplied accessories

- Quick Setup Guide (1)
- Startup Guide (1)
- Reference Guide (1)
- Remote control (1)
- R03 (size AAA) batteries (2)
- AC power cord (mains lead) (1)
- AM loop antenna (aerial) (1)

- FM wire antenna (aerial) (1)

(for USA and Canadian models)

(for other models)

- Optimizer microphone (1)

- Front cover (1)

[3] Preparation | Before using

Notes on installing the receiver

- Do not install the appliance in a confined space, such as a bookcase.
- Sufficient space around the receiver is needed to release heat. When placing the receiver in a rack, leave more than 44.45 mm (1.75 in) space above the receiver, and more than 44.45 mm (1.75 in) space along the sides of the receiver. The rack behind the receiver should be open. If you place the receiver with its back against the wall, leave more than 88.9 mm (3.5 in) space between the receiver and the wall.
- Make sure to use a “WS-RE1” dedicated rack mount kit for this receiver when mounting the receiver on a rack mount.
- Place the receiver in a location with adequate ventilation to prevent heat buildup and prolong the life of the receiver.
- Do not place the receiver near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.
- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunctions.
- Magnets are attached to both the front panel and front cover. Do not place cards with magnetic stripes, such as bank cards or ID passes, near the receiver. These cards may become unusable due to the effects of the magnets on the receiver.

[4] Preparation | Before using

Function for conversion of video signals

The receiver is equipped with a function for converting video signals. Video signals and component video signals can be output as HDMI video signals (*1).
The correspondence of the INPUT jacks to the OUTPUT jacks is shown below.

- **HDMI IN:** HDMI OUT
- **COMPONENT VIDEO IN:** HDMI OUT (*1), COMPONENT VIDEO MONITOR OUT (*2)

- **VIDEO IN:** HDMI OUT (*1), MONITOR VIDEO OUT (*2), ZONE2 VIDEO OUT (*2)

*1 Video signals are upconverted and upscaled (up to 4K) when outputting to HDMI OUT A jack. Video signals are upconverted but video resolution is the same as the input video source when outputting to HDMI OUT B jack.

*2 The same type of signal as the input signal is output.

Note

- When video signals from a VCR, etc., are upconverted on this receiver and then viewed on your TV, the image on the TV screen may appear distorted horizontally or no image may be seen depending on the status of the video signal output.
- If you are using image improvement circuitry with your VCR, it may impact the video signal conversion. It is recommended that you turn off this function on your VCR.
- Converted HDMI image output does not support “x.v.Color,” Deep Color, or 3D.
- HDMI video signals cannot be converted to component video signals or video signals.
- 1080p component video signals cannot be upconverted.
- When [4K Scaling] is set to [Auto], if the HDMI input signals are 1080p@23.98/24 Hz and a 4K-compatible TV is connected to HDMI OUT A jack, the HDMI input signals are automatically upscaled to 4K images and output from the HDMI OUT A jack.
- When [HDMI Out B Mode] is set to [Zone2], component video signals or video signals selected in zone 2 can be output from the HDMI OUT B jack.
- If you select different component video signals or video signals in the main zone and zone2 when [HDMI Out B Mode] is set to [Zone2], only audio signals can be output from HDMI OUT B jack and the screen will blackout.

Digital audio formats supported by the receiver

The digital audio formats that this receiver can decode depend on the digital audio output jacks of the connected device. This receiver supports the following audio formats. The words in brackets are those indicated on the display panel.

Dolby Digital [DOLBY DIGITAL]

Maximum number of channels: 5.1

Connection with the receiver: COAXIAL/OPTICAL, HDMI

Dolby Digital EX [DOLBY DIGITAL EX]

Maximum number of channels: 6.1

Connection with the receiver: COAXIAL/OPTICAL, HDMI

Dolby Digital Plus [DOLBY DIGITAL+] (*)

Maximum number of channels: 7.1

Connection with the receiver: HDMI

Dolby TrueHD [DOLBY TrueHD] (*)

Maximum number of channels: 7.1

Connection with the receiver: HDMI

DTS [DTS]

Maximum number of channels: 5.1

Connection with the receiver: COAXIAL/OPTICAL, HDMI

DTS-ES Discrete [DTS-ES Dscrt]

Maximum number of channels: 6.1

Connection with the receiver: COAXIAL/OPTICAL, HDMI

DTS-ES Matrix [DTS-ES Mtrx]

Maximum number of channels: 6.1

Connection with the receiver: COAXIAL/OPTICAL, HDMI

DTS 96/24 [DTS 96/24]

Maximum number of channels: 5.1

Connection with the receiver: COAXIAL/OPTICAL, HDMI

DTS-HD High Resolution Audio [DTS-HD HI RES] (*)

Maximum number of channels: 7.1

Connection with the receiver: HDMI

DTS-HD Master Audio [DTS-HD MSTR] (*)

Maximum number of channels: 7.1

Connection with the receiver: HDMI

DSD [DSD] (*)

Maximum number of channels: 5.1

Connection with the receiver: HDMI

Multi Channel Linear PCM (*) [LINEAR PCM]

Maximum number of channels: 7.1

Connection with the receiver: HDMI

* Audio signals are output in another format if the playback device does not correspond to the actual format. For details, refer to the operating instructions of the playback device.

Notes on connecting cables

- Be sure to disconnect the AC power cord (mains lead) before connecting cables.
- It is not necessary to connect all of the cables. Connect cables according to the availability of jacks on the connected device.
- Use a High Speed HDMI cable. 1080p, Deep Color, 4K or 3D images may not be displayed properly if you use a Standard HDMI cable.
- We do not recommend using an HDMI-DVI conversion cable. If you connect an HDMI-DVI conversion cable to a DVI-D device, the sound and/or image may be lost. Connect separate audio cables or digital connecting cables, then reassign the input jacks if the sound is not output correctly. For details, see “Using other video/audio input jacks (Input Assign).”
- When connecting optical digital cables, insert the plugs straight until they click into place.
- Do not bend or tie optical digital cables.

Hint

- All of the digital audio jacks are compatible with 32 kHz, 44.1 kHz, 48 kHz, and 96 kHz sampling frequencies.

If you want to connect several digital devices, but cannot find an unused input

See “Using other video/audio input jacks (Input Assign).”

Using HDMI connections

High-Definition Multimedia Interface (HDMI) is an interface that transmits video and audio signals in digital format. Connecting devices made by Sony that are “BRAVIA” Sync-compatible makes operations simpler. See “Interlocking other devices using an HDMI connection (“BRAVIA” Sync).”

HDMI features

- Digital audio signals transmitted by HDMI can be output from the speakers and the PRE OUT jacks on this receiver (the PRE OUT jacks are only for STR-ZA3000ES). This signal supports Dolby Digital, DTS, DSD, and Linear PCM. For details, see “Digital audio formats supported by the receiver.”
- The receiver can receive Multi Channel Linear PCM (up to 8 channels) with a sampling frequency of 192 kHz or less via an HDMI connection.
- Analog video signals input to the VIDEO jack or COMPONENT VIDEO jacks can be output as HDMI signals. Audio signals input to the OPTICAL IN, COAXIAL IN and ANALOG IN jacks can be output as HDMI signals with converted analog video signals

from the HDMI OUT B jack when [HDMI Out B Mode] is set to [Zone2].

- This receiver supports High Bitrate Audio (DTS-HD Master Audio, Dolby TrueHD), Deep Color, “x.v.Color,” and 4K or 3D transmission.
- To enjoy 3D images, connect a 3D-compatible TV and video device (Blu-ray Disc Player, Blu-ray Disc recorder, PlayStation 3, etc.) to the receiver using High Speed HDMI cables, put on 3D glasses, and then play 3D-compatible content.
- To enjoy 4K images, connect a 4K-compatible TV or video device (Blu-ray Disc Player, etc.) to the receiver using High Speed HDMI cables, and then play 4K-compatible content.
- The HDMI jacks designated as being “HDCP 2.2” support High-bandwidth Digital Content Protection System Revision 2.2 (HDCP 2.2). Connect these HDMI jacks to jacks that support HDCP 2.2 on a TV or a player. Refer to the operating instructions of the connected device for details.

Note

- Depending on the TV or video device, 4K or 3D images may not be displayed. Check the HDMI video formats supported by the receiver.
- Refer to the operating instructions of each connected device for details.

Installing speakers

This receiver allows you to use up to a 7.2-channel system (7 speakers and two subwoofers).
Typical examples of speaker system configurations are as follows.

5.1-channel speaker system

To fully enjoy theater-like multi-channel surround sound, you need five speakers (two front speakers, a center speaker, and two surround speakers) and a subwoofer.

7.1-channel speaker system using surround back speakers

You can enjoy high-fidelity reproduction of recorded sound from a DVD or Blu-ray Disc in 6.1-channel or 7.1-channel format.

5.1 -channel speaker system and zone 2

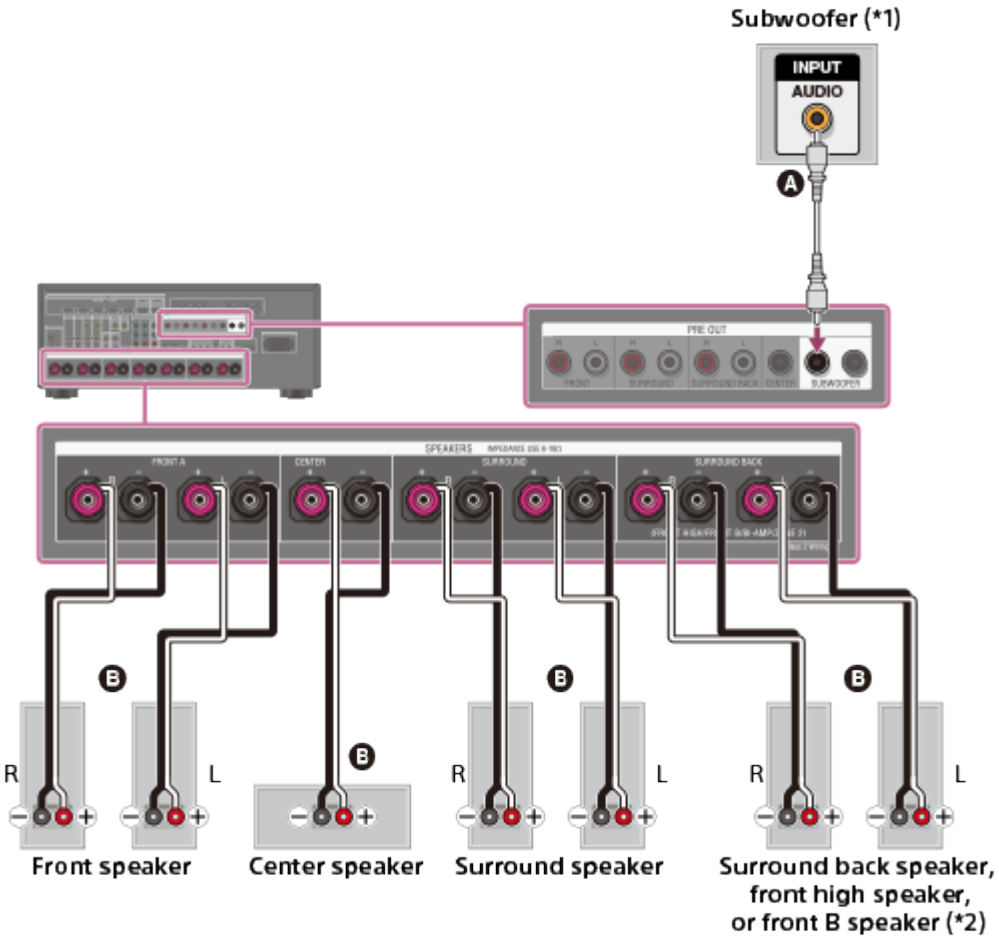
If you make a 5.1ch connection in the main zone, you can also enjoy the sound in another location (“Zone 2”) by connecting additional zone 2 speakers.

Note

- You cannot use the surround back speakers and the front high speakers simultaneously.

Connecting speakers (for STR-ZA3000ES)

Connect each speaker as illustrated below.
Be sure to disconnect the AC power cord (mains lead) before connecting cables.
For details on how to connect speaker cables to the receiver, see “How to connect speaker cables.”



A Monaural audio cable (not supplied)

B Speaker cable (not supplied)

*1 If you connect a subwoofer with an auto standby function, turn off this function when watching movies. If the auto standby function is turned on, it switches to standby mode automatically based on the level of the input signal to the subwoofer, and the sound may not be output.

*2 Notes on connections to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals

- If connecting only one surround back speaker, connect it to the L (+/-) terminals.
- If you have an additional front speaker system, connect it to these terminals. In this case, perform the following procedure:

1. Select [Speaker Pattern] in the Speaker Setup menu, then select a speaker pattern that does not have surround back and front high speakers.
2. Set [SB Speaker Assign] in the Speaker Setup menu to [Front B].

You can select the front speaker system you want by using the SPEAKERS button on the receiver.

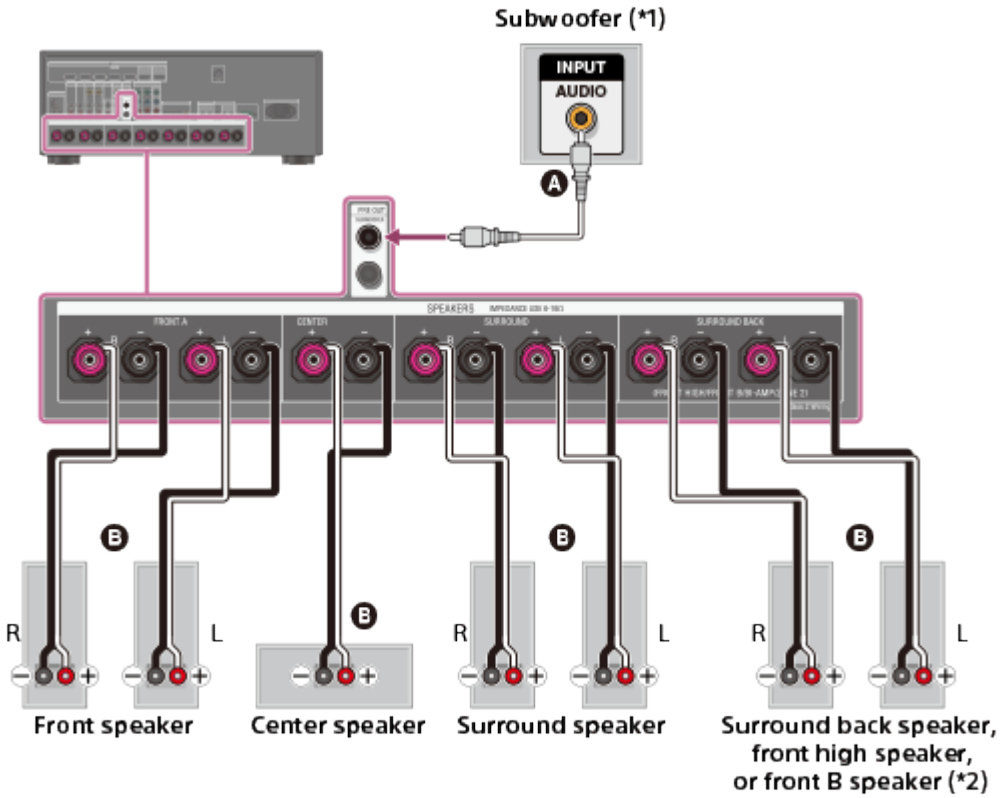
- You can connect the front speakers to this terminal using a bi-amplifier connection. In this case, set [SB Speaker Assign] in the Speaker Setup menu to [Bi-Amp].

Note

- After you have installed and connected your speakers, be sure to select the speaker pattern you want using [Speaker Pattern] in the Speaker Setup menu.

Connecting speakers (for STR-ZA2000ES/STR-ZA1000ES)

Connect each speaker as illustrated below.
Be sure to disconnect the AC power cord (mains lead) before connecting cables.
For details on how to connect speaker cables to the receiver, see “How to connect speaker cables.”



Ⓐ Monaural audio cable (not supplied)

Ⓑ Speaker cable (not supplied)

*1 If you connect a subwoofer with an auto standby function, turn off this function when watching movies. If the auto standby function is turned on, it switches to standby mode automatically based on the level of the input signal to the subwoofer, and the sound may not be output.

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  1. Select [Speaker Pattern] in the Speaker Setup menu, then select a speaker pattern that does not have surround back and front high speakers.
  2. Set [SB Speaker Assign] in the Speaker Setup menu to [Front B].

  You can select the front speaker system you want by using the SPEAKERS button on the receiver.
- You can connect the front speakers to this terminal using a bi-amplifier connection. In this case, set [SB Speaker Assign] in the Speaker Setup menu to [Bi-Amp].

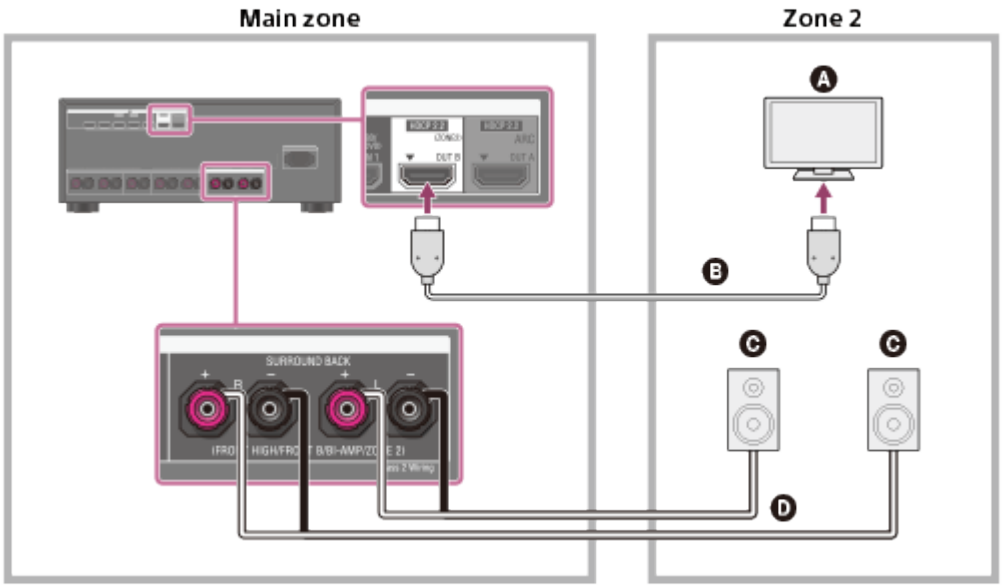
Note

- After you have installed and connected your speakers, be sure to select the speaker pattern you want using [Speaker Pattern] in the Speaker Setup menu.

Connecting the speakers in zone 2

You can enjoy sound from a device connected to the receiver in a zone other than the main zone. For example, you can watch a DVD in the main zone and listen to a CD in zone 2.

Connect each speaker as illustrated below.
Be sure to disconnect the AC power cord (mains lead) before connecting cables. For details on how to connect speaker cables to the receiver, see “How to connect speaker cables.”



Ⓐ TV
Ⓑ HDMI cable (not supplied)
Ⓒ Speakers
Ⓓ Speaker cable (not supplied)

Note

- The following settings are required for this connection.
  - Set [HDMI Out B Mode] in the HDMI Setup menu to [Zone2]
  - Set [Zone2 Audio Out] in the HDMI Setup menu to [Zone2 TV + AMP]
- Turn the volume of the TV down or set [Zone2 Audio Out] in the HDMI Setup menu to [AMP] if you do not want to output sound from the TV in zone 2.
- You cannot remedy the time gap between video on zone 2 TV and audio from zone 2 speakers using the A/V Sync function.
- When using this zone 2 connection, you need to set up the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals. For details, see “Setting the speakers for zone 2.”

Connecting a TV (for STR-ZA3000ES)

Connect a TV to the HDMI OUT or MONITOR VIDEO OUT jack. You can operate this receiver using a GUI (Graphical User Interface). GUI is used only for HDMI OUT A jack. Be sure to disconnect the AC power cord (mains lead) before connecting cables.

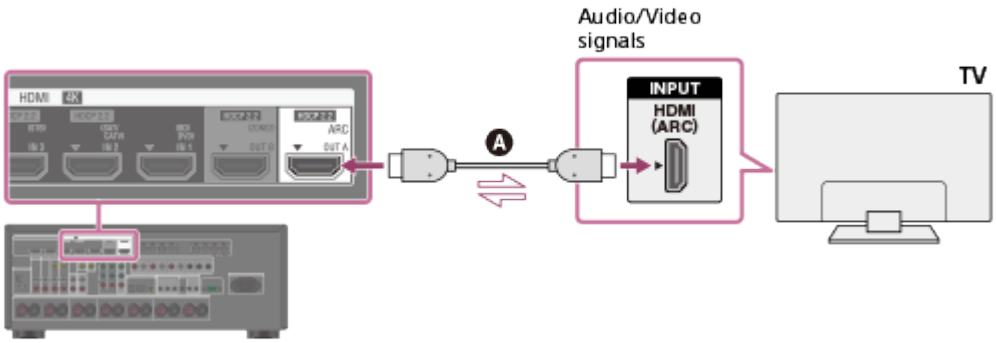
To watch 4K resolution content

The HDMI jacks designated as being “HDCP 2.2” (HDMI IN 2/IN 3, HDMI OUT A/OUT B) support High-bandwidth Digital Content Protection System Revision 2.2 (HDCP 2.2).

Connect these HDMI jacks to jacks that support HDCP 2.2 on a TV or a player. Refer to the operating instructions of the connected device for details.

Connecting a TV compatible with the Audio Return Channel (ARC) function via an HDMI connection

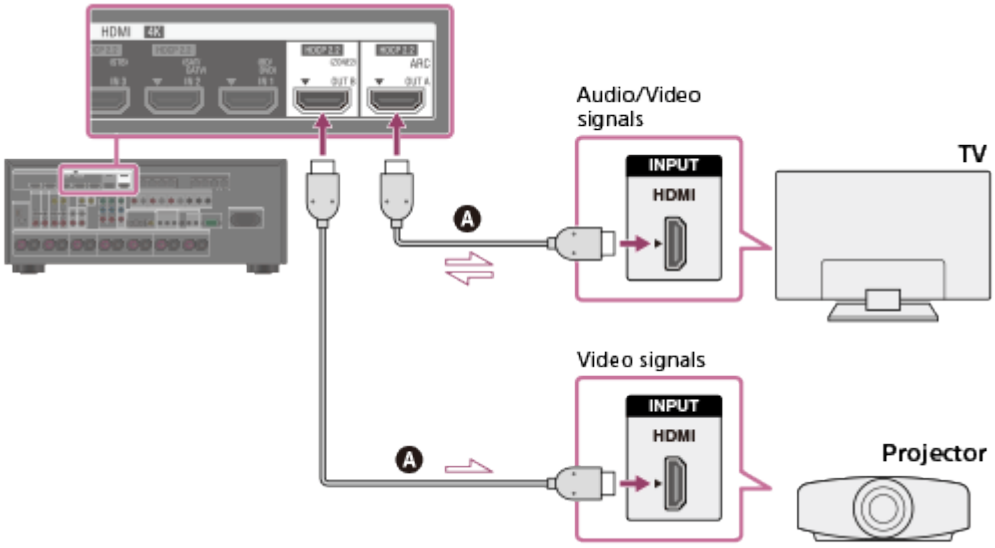
To use the ARC function, set [HDMI Out B Mode] to [Main] and [Control for HDMI] to [On].



A HDMI cable (not supplied)

Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

Connecting a TV and a projector



A HDMI cable (not supplied)

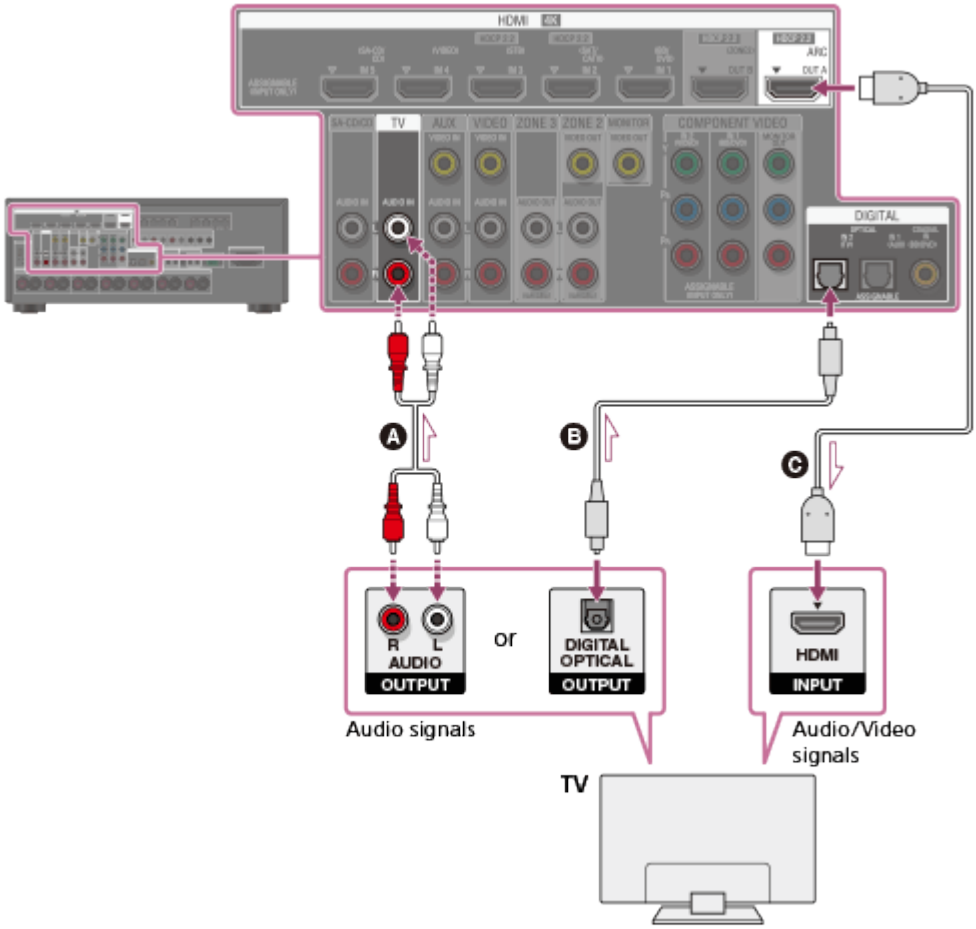
Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

Note

- For this connection, set [HDMI Out B Mode] in the HDMI Setup menu to [Main].

Connecting a TV incompatible with the Audio Return Channel (ARC) function via an HDMI connection

The solid lines show recommended connections and the dashed lines show alternative connections.



A Audio cable (not supplied)

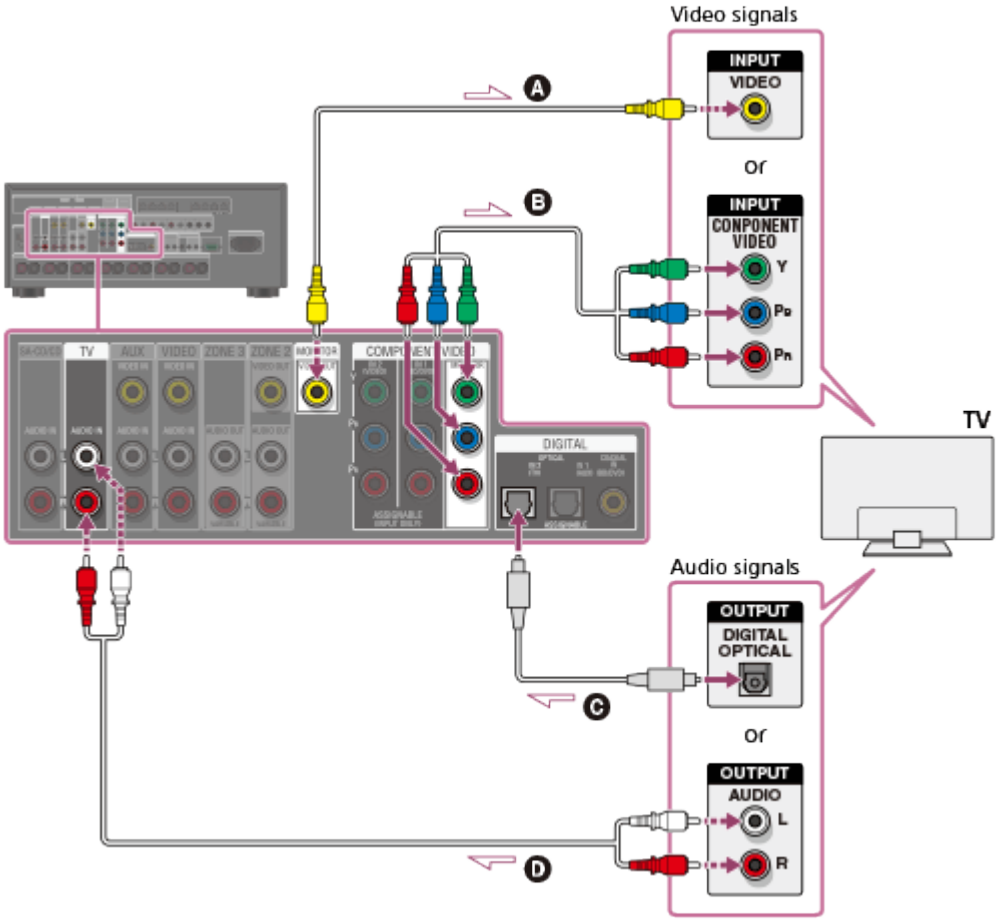
B Optical digital cable (not supplied)

C HDMI cable (not supplied)

Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

Connecting a TV without HDMI jacks

The solid lines show recommended connections and the dashed lines show alternative connections.



A Video cable (not supplied)
B Component video cable (not supplied)
C Optical digital cable (not supplied)
D Audio cable (not supplied)

Note

- Connect a TV monitor or a projector to the HDMI OUT or MONITOR VIDEO OUT jack on the receiver.
- Depending on the status of the connection between the TV and the antenna (aerial), the image on the TV screen may be distorted. If this is the case, place the antenna (aerial) farther away from the receiver.
- When connecting an optical digital cable, insert the plugs straight until they click into place.
- Do not bend or tie optical digital cables.

Hint

- All of the digital audio jacks are compatible with 32 kHz, 44.1 kHz, 48 kHz, and 96 kHz sampling frequencies.
- The receiver has a video conversion function. For details, see “Function for conversion of video signals.”
- When connecting a TV to the receiver via the TV IN jacks of the receiver, set the sound output jack of the TV to [Fixed] if it can be switched between either [Fixed] or [Variable].

Connecting a TV (for STR-ZA2000ES/STR-ZA1000ES)

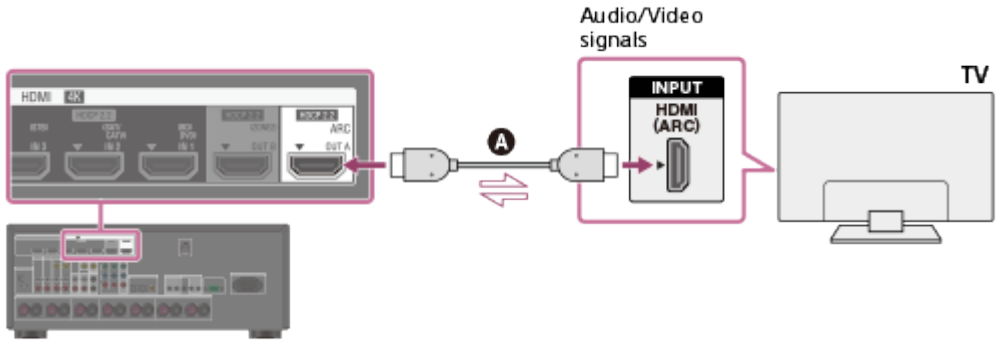
Connect a TV to the HDMI OUT or MONITOR VIDEO OUT jack. You can operate this receiver using a GUI (Graphical User Interface). GUI is used only for HDMI OUT A jack.
Be sure to disconnect the AC power cord (mains lead) before connecting cables.

To watch 4K resolution content

The HDMI jacks designated as being “HDCP 2.2” (HDMI IN 2, HDMI OUT A) support High-bandwidth Digital Content Protection System Revision 2.2 (HDCP 2.2). Connect these HDMI jacks to jacks that support HDCP 2.2 on a TV or a player. Refer to the operating instructions of the connected device for details.

Connecting a TV compatible with the Audio Return Channel (ARC) function via an HDMI connection

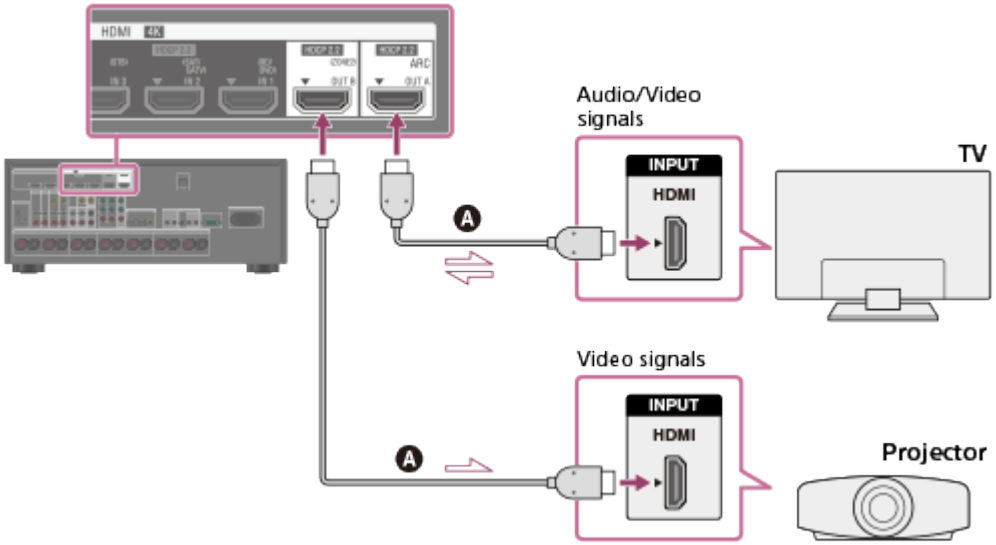
To use the ARC function, set [HDMI Out B Mode] to [Main] and [Control for HDMI] to [On].



A HDMI cable (not supplied)

Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

Connecting a TV and a projector



Ⓐ HDMI cable (not supplied)

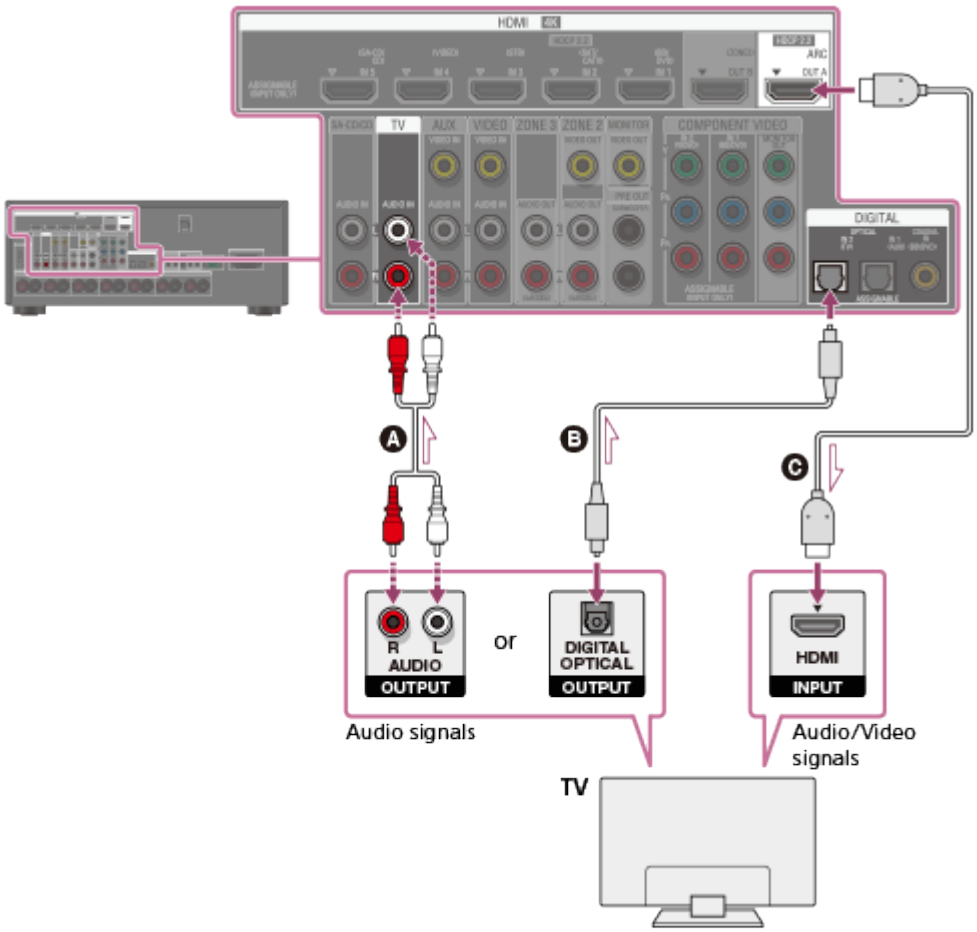
Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

Note

- For this connection, set [HDMI Out B Mode] in the HDMI Setup menu to [Main].

Connecting a TV incompatible with the Audio Return Channel (ARC) function via an HDMI connection

The solid lines show recommended connections and the dashed lines show alternative connections.



Ⓐ Audio cable (not supplied)

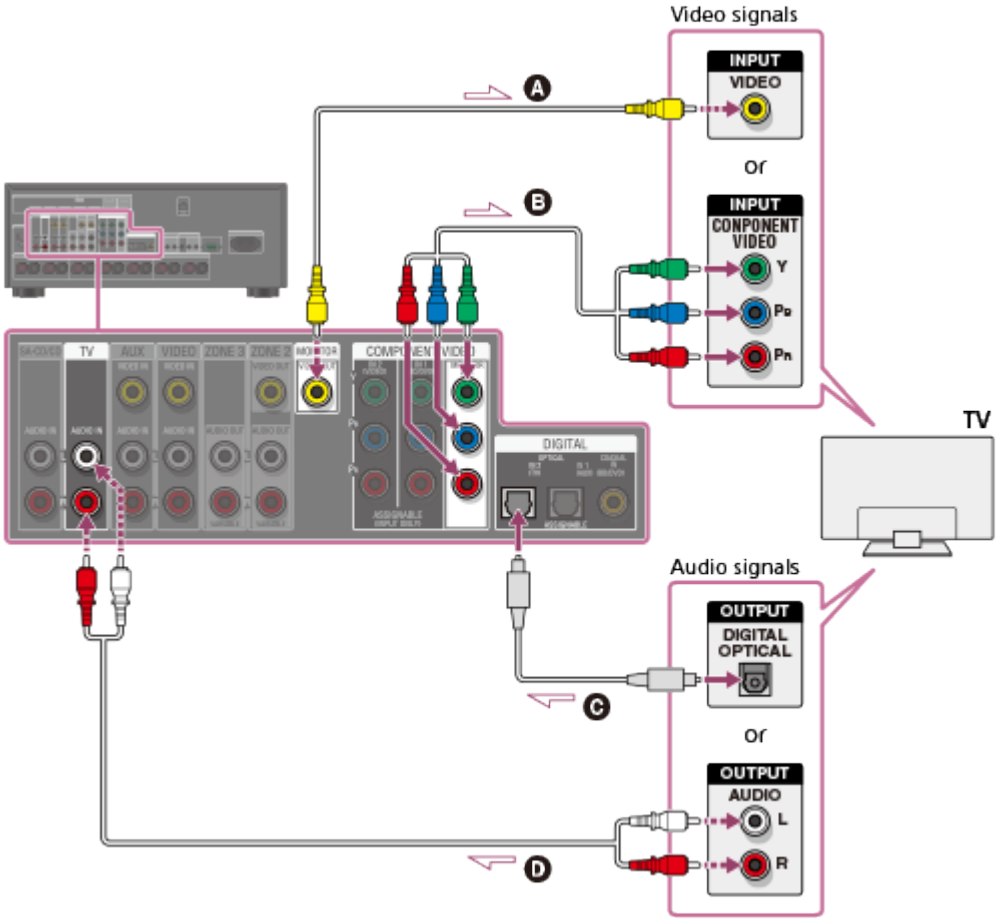
Ⓑ Optical digital cable (not supplied)

Ⓒ HDMI cable (not supplied)

Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

Connecting a TV without HDMI jacks

The solid lines show recommended connections and the dashed lines show alternative connections.



A Video cable (not supplied)
B Component video cable (not supplied)
C Optical digital cable (not supplied)
D Audio cable (not supplied)

Note

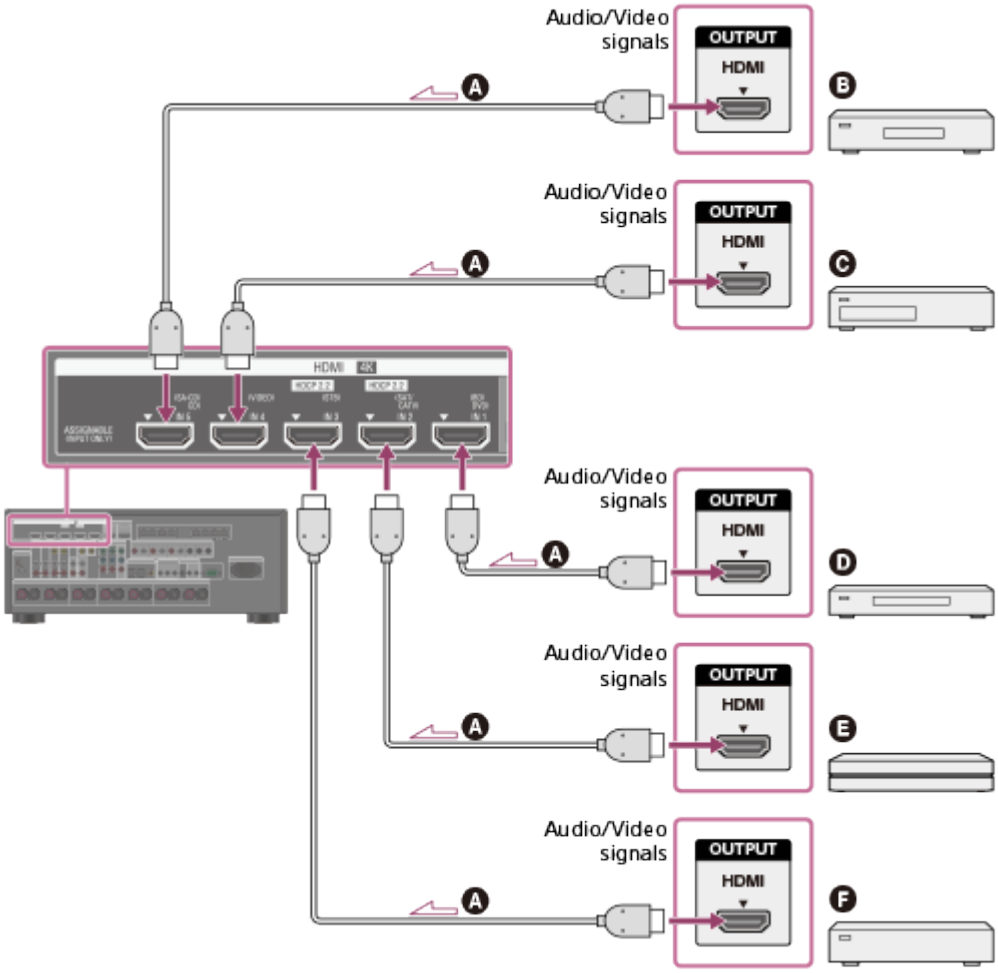
- Connect a TV monitor or a projector to the HDMI OUT or MONITOR VIDEO OUT jack on the receiver.
- Depending on the status of the connection between the TV and the antenna (aerial), the image on the TV screen may be distorted. If this is the case, place the antenna (aerial) farther away from the receiver.
- When connecting an optical digital cable, insert the plugs straight until they click into place.
- Do not bend or tie optical digital cables.

Hint

- All of the digital audio jacks are compatible with 32 kHz, 44.1 kHz, 48 kHz, and 96 kHz sampling frequencies.
- The receiver has a video conversion function. For details, see “Function for conversion of video signals.”
- When connecting a TV to the receiver via the TV IN jacks of the receiver, set the sound output jack of the TV to [Fixed] if it can be switched between either [Fixed] or [Variable].

Connecting devices with HDMI jacks (for STR-ZA3000ES)

Connect devices to the receiver as illustrated below.
Before connecting cables, be sure to disconnect the AC power cord (mains lead).
If your device does not have an HDMI jack, see “Connecting devices with jacks other than HDMI jacks.”
The HDMI jacks designated as being “HDCP 2.2” (HDMI IN 2/IN 3, HDMI OUT A/OUT B) support High-bandwidth Digital Content Protection System Revision 2.2 (HDCP 2.2). To watch 4K resolution content, connect these HDMI jacks to jacks that support HDCP 2.2 on a TV or a player. Refer to the operating instructions of the connected device for details.



A HDMI cable (not supplied)
Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

B Super Audio CD player, CD player

C DVD recorder

D Blu-ray Disc Player, DVD player

E 4K Media Player

Ⓕ **Set-top box**

Note

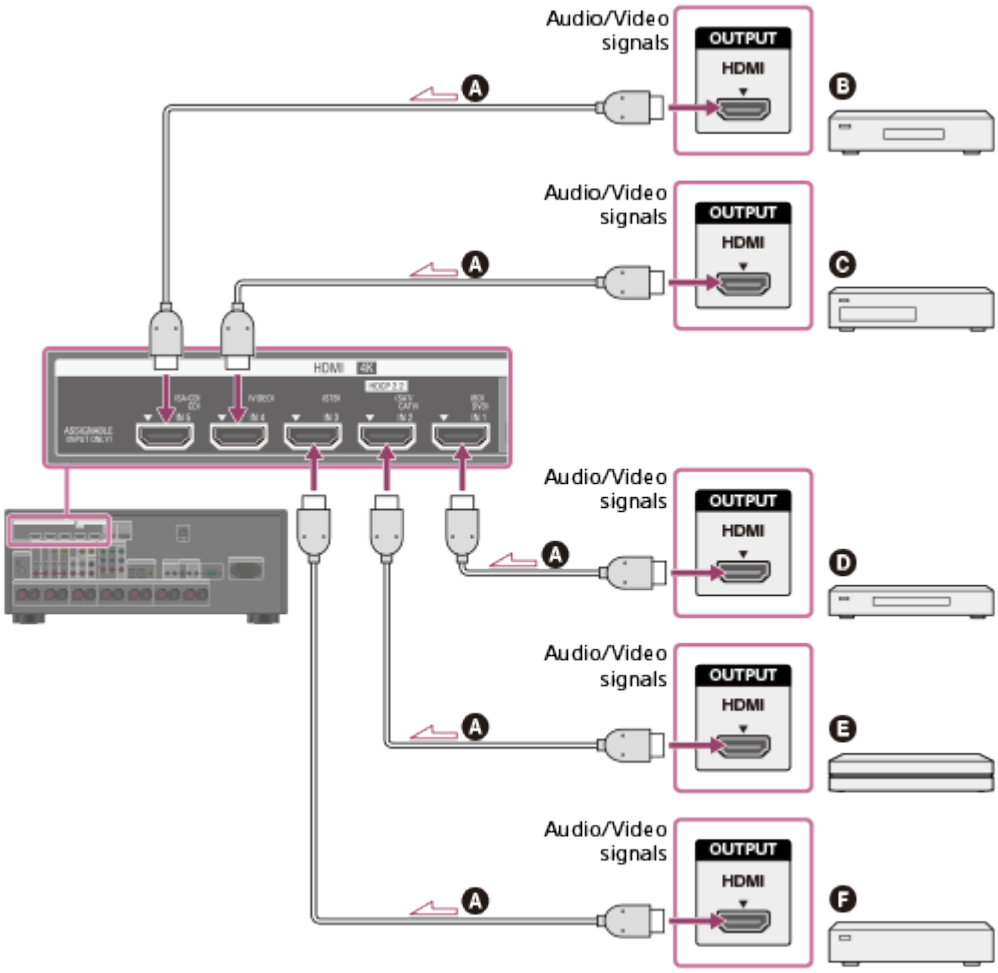
- This HDMI connection is an example. You can connect each HDMI device to any HDMI input, including the HDMI input on the front panel.

Hint

- The image quality depends on the connecting jack. We recommend that you connect your devices via an HDMI connection if they have HDMI jacks.

Connecting devices with HDMI jacks (for STR-ZA2000ES/STR-ZA1000ES)

Connect devices to the receiver as illustrated below.
Before connecting cables, be sure to disconnect the AC power cord (mains lead).
If your device does not have an HDMI jack, see “Connecting devices with jacks other than HDMI jacks.”
The HDMI jacks designated as being “HDCP 2.2” (HDMI IN 2, HDMI OUT A) support High-bandwidth Digital Content Protection System Revision 2.2 (HDCP 2.2). To watch 4K resolution content, connect these HDMI jacks to jacks that support HDCP 2.2 on a TV or a player. Refer to the operating instructions of the connected device for details.



A HDMI cable (not supplied)

Sony recommends that you use an HDMI-authorized cable or HDMI cable made by Sony.

B Super Audio CD player, CD player

C DVD recorder

D Blu-ray Disc Player, DVD player

E 4K Media Player

F Set-top box

Note

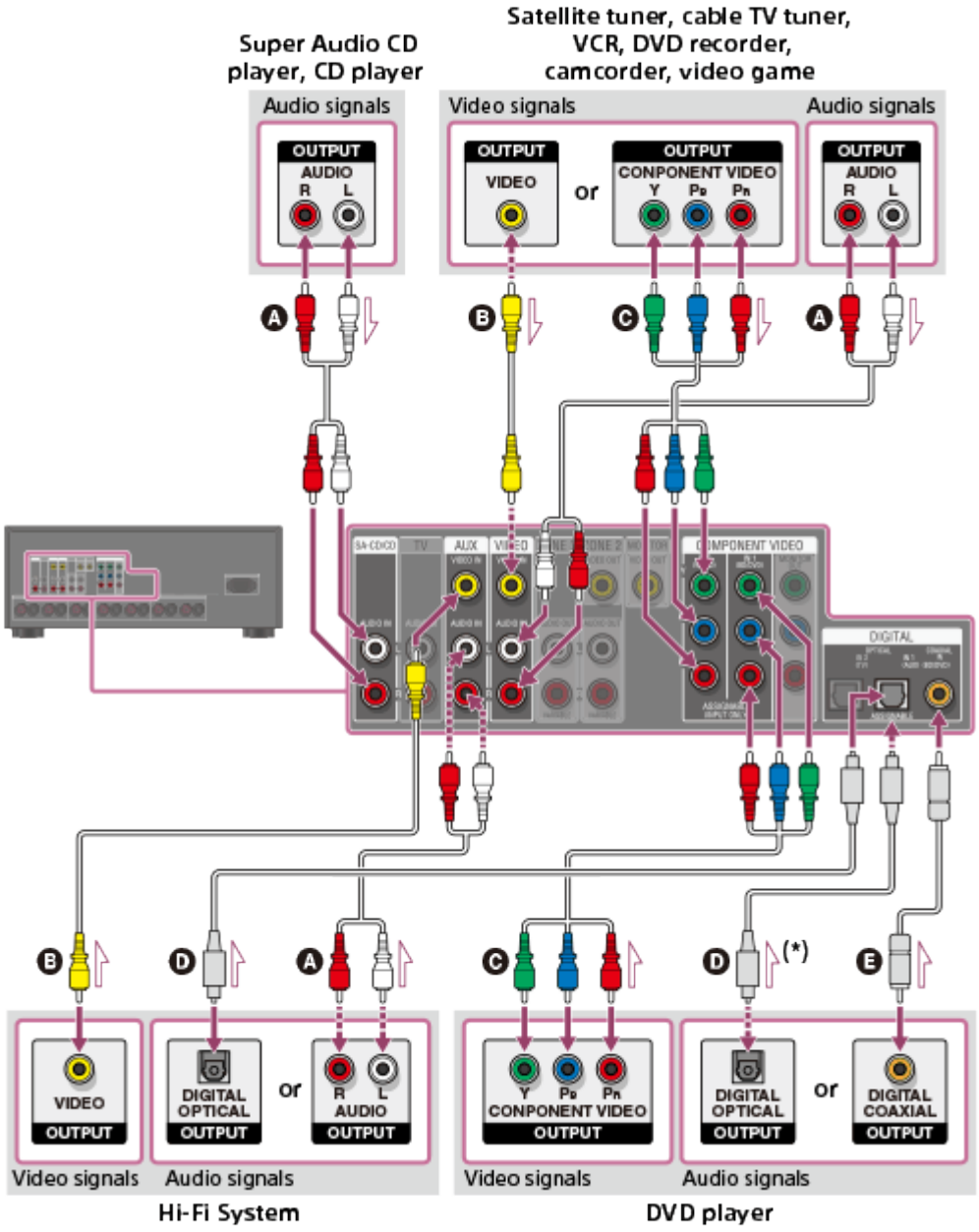
- This HDMI connection is an example. You can connect each HDMI device to any HDMI input, including the HDMI input on the front panel (for STR-ZA2000ES only).

Hint

- The image quality depends on the connecting jack. We recommend that you connect your devices via an HDMI connection if they have HDMI jacks.

Connecting devices with jacks other than HDMI jacks

Connect devices to the receiver as illustrated below.
The solid lines show recommended connections and the dashed lines show alternative connections.
Be sure to disconnect the AC power cord (mains lead) before connecting cables.



- **A Audio cable (not supplied)**
- **B Video cable (not supplied)**
- **C Component video cable (not supplied)**
- **D Optical digital cable (not supplied)**
- **E Coaxial digital cable (not supplied)**

* If you connect devices with an OPTICAL jack, reassign the input jacks. For details, see “Using other video/audio input jacks (Input Assign).”

Note

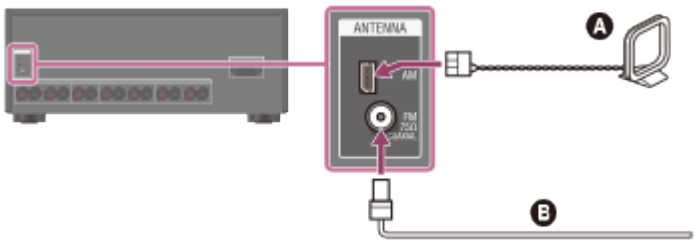
- You can rename each input so that the name can be displayed on the display panel of the receiver. For details, see “Changing the name for each input (Name).”

Hint

- The image quality depends on the connecting jack. We recommend that you connect your devices via an HDMI connection if they have HDMI jacks.

Connecting the antennas (aerials)

Connect the supplied antennas (aerials) to the receiver as illustrated below.
Be sure to disconnect the AC power cord (mains lead) before connecting the antennas (aerials).



A AM loop antenna (aerial) (supplied)
B FM wire antenna (aerial) (supplied) (*)

* The illustration above is for USA and Canadian models.

Note

- To prevent noise pickup, keep the AM loop antenna (aerial) away from the receiver and other devices.
- Be sure to fully extend the FM wire antenna (aerial).
- After connecting the FM wire antenna (aerial), keep it as horizontal as possible.

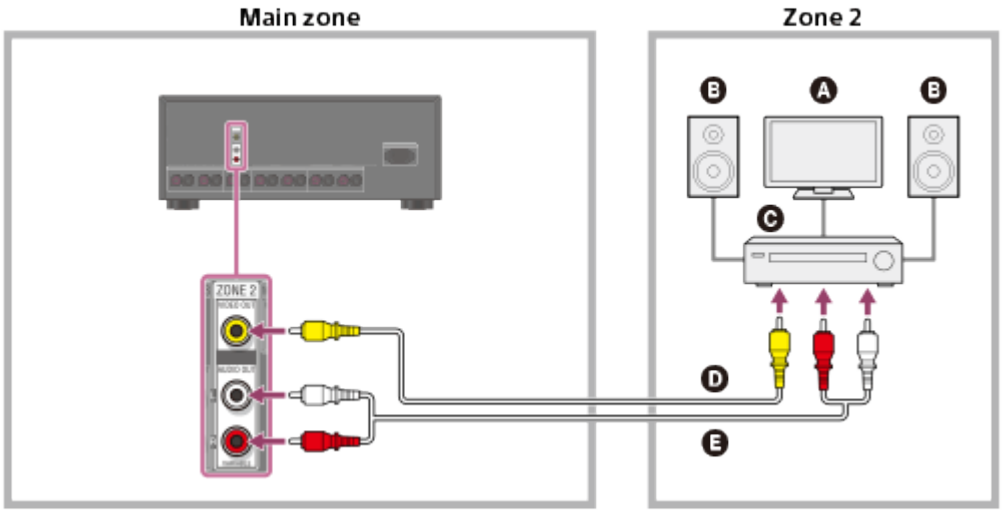
Connecting another amplifier in zone 2/3

You can enjoy image (*) and sound from a device connected to the receiver in a zone other than the main zone. For example, you can watch a DVD in the main zone and listen to a CD in zone 2.

* For a connection using the HDMI OUT B jack only

Connecting another amplifier using the ZONE 2 VIDEO/AUDIO

OUT jack



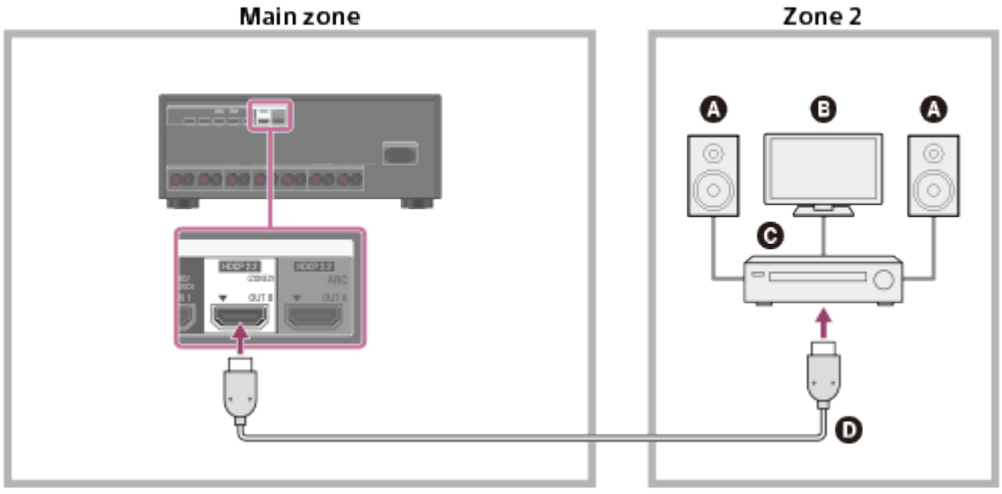
- **A TV monitor**
- **B Speakers**
- **C Other amplifier/receiver**
- **D Video cable (not supplied)**
- **E Audio cable (not supplied)**

Note

- Stream input signals cannot be output even when outputting optical/coaxial audio signals.
- When outputting optical/coaxial audio signals, set the audio output to PCM on the connected device. For details, refer to the operating instructions of the connected device.

Connecting another amplifier using the HDMI OUT B jack

HDMI video/audio input signals, optical/coaxial audio input signals are output to zone 2 using HDMI OUT B jack on the receiver.

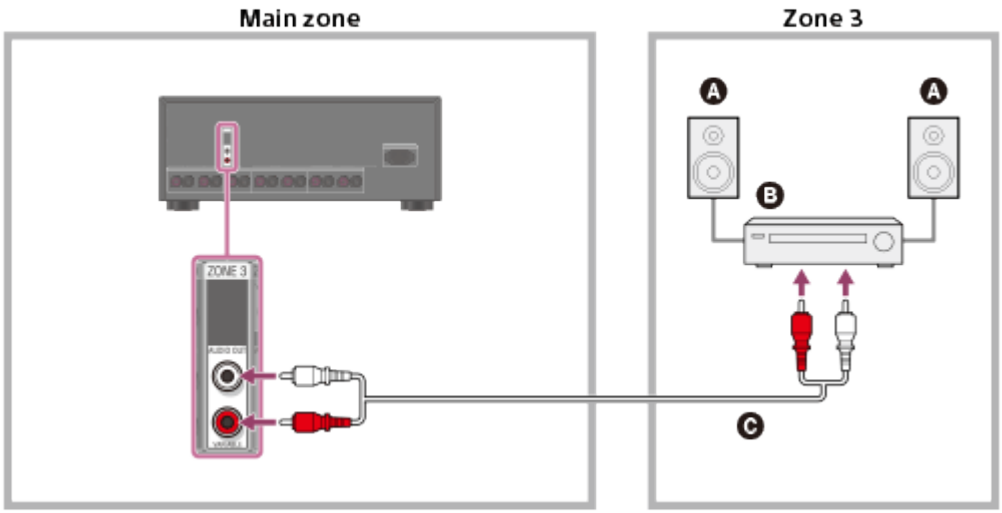


- **A Speakers**
- **B TV**
- **C Other amplifier/receiver**
- **D HDMI cable (not supplied)**

Note

- The following settings are required for this connection.
  - Set [HDMI Out B Mode] in the HDMI Setup menu to [Zone2]
  - Set [Zone2 Audio Out] in the HDMI Setup menu to [Zone2 AMP]
- When outputting optical/coaxial audio signals, set the audio output to PCM on the connected device. For details, refer to the operating instructions of the connected device.

Connecting another amplifier using the ZONE 3 AUDIO OUT jack



Ⓐ Speakers
Ⓑ Other amplifier/receiver
Ⓒ Audio cable (not supplied)

Note

- Only devices connected to the analog audio input jacks and the built-in tuner (FM/AM) can output signals to Zone 3. No signals are output from devices connected to only the digital input jacks.

System requirements for a wired LAN connection

The following system environment is required to use the network function of the receiver via a wired LAN connection.

Router

- Use a router compatible with transmission speeds of 100 Mbps or greater.
- We recommend that you use a router equipped with a built-in DHCP (Dynamic Host Configuration Protocol) server because the default setting on the receiver is DHCP.

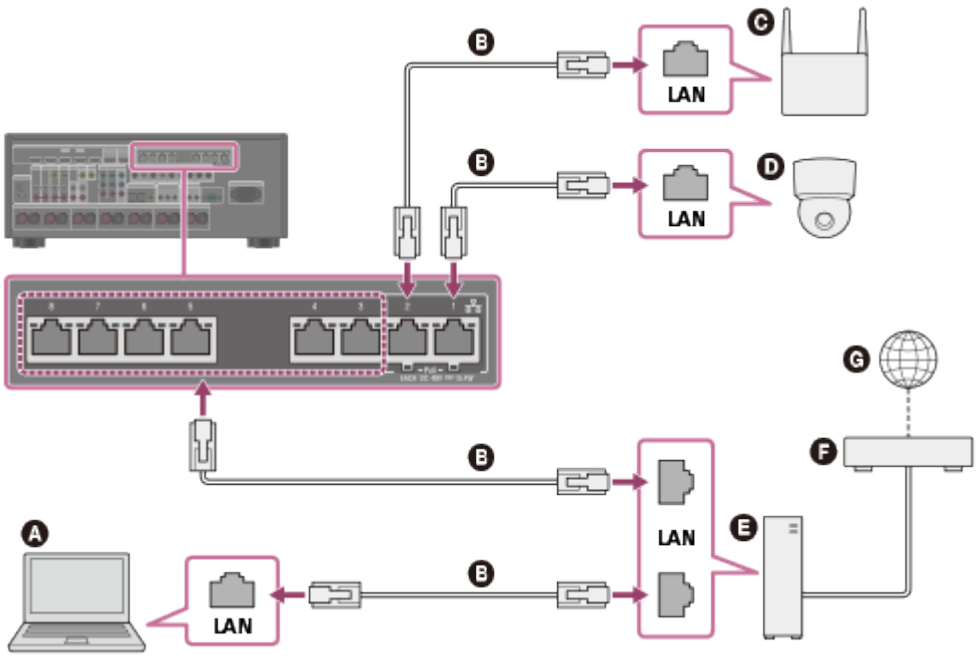
This function automatically assigns IP addresses to devices on the LAN.

LAN cable

- We recommend using a normal shielded type cable for a wired LAN to avoid electric noise.
- Some flat-type LAN cables are easily affected by noise.
- A CAT5e or greater Ethernet cable is required for transmission speed of 1,000 Mbps. (CAT6 is recommended.) (for STR-ZA3000ES)

Connecting the receiver to the network (for STR-ZA3000ES)

The following illustration is an example configuration of a home network with the receiver, and a computer.



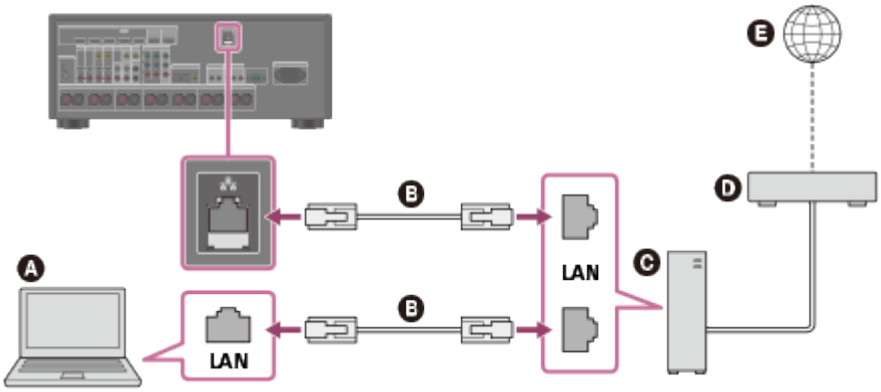
- **Ⓐ Computer**
- **Ⓑ LAN cable (not supplied)**
- **Ⓒ Wireless access point, etc.**
- **Ⓓ Network camera, etc.**
- **Ⓔ Router**
- **Ⓕ Modem**
- **Ⓖ Internet**

Note

- Connect a router to one among ports 1 to 8 of the receiver using only one LAN cable. Do not connect the same router to the receiver using more than one LAN cable. It may cause a malfunction.
- Ports No. 1 and No. 2 support PoE (Power over Ethernet, Alternative A). If you connect a PoE-compatible device to one of these ports, power will be supplied to the device from the receiver.
- You can also connect a device that does not support PoE to the PoE port.
- The PoE port lights in red while supplying power.
- This receiver supports PoE Class 3.

Connecting the receiver to the network (for STR-ZA2000ES/STR-ZA1000ES)

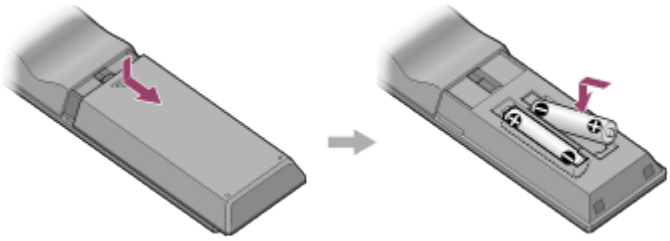
The following illustration is an example configuration of a home network with the receiver, and a computer.



A Computer
B LAN cable (not supplied)
C Router
D Modem
E Internet

Inserting batteries into the remote control

Insert two R03 (size AAA) batteries (supplied) into the remote control. Make sure that the + and - ends are in the correct position when installing batteries.



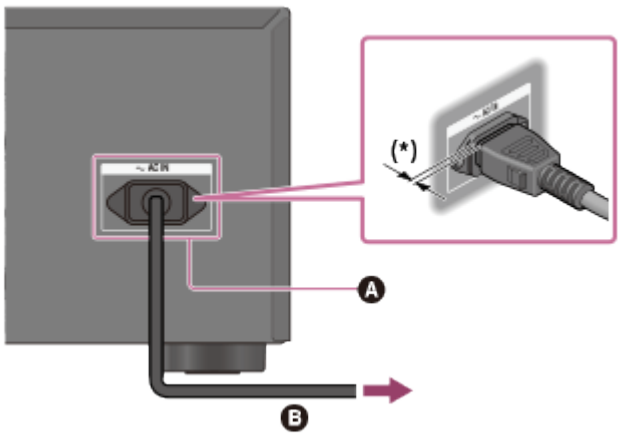
Note

- Do not leave the remote control in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not mix manganese batteries with other kinds of batteries.
- Do not expose the remote control sensor to direct sunlight or lights. Doing so may cause a malfunction.
- If you do not intend to use the remote control for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.
- When the receiver no longer responds to the remote control, replace both of the batteries with new ones.

Turning on the receiver

When you have made all connections with the other devices, connect the AC power cord (mains lead), then turn on the receiver.

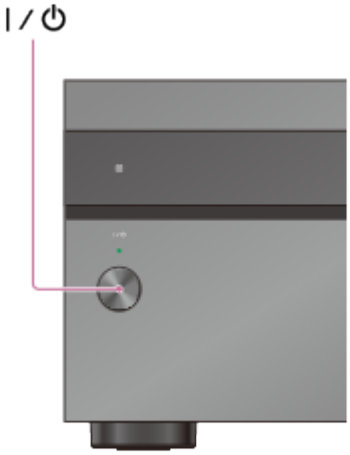
1. Connect the supplied AC power cord (mains lead) to the AC IN terminal on the receiver firmly, then connect the AC power cord (mains lead) to a wall outlet.



A AC IN terminal
B AC power cord (mains lead) (supplied)

* Space remains between the plug and the rear panel even when the power cord (mains lead) is inserted firmly. The cord is supposed to be connected this way. This is not malfunction.

2. Press I/⏻ (on/standby) to turn on the receiver.



You can also turn on the receiver using MAIN I/⏻ (on/standby) on the remote control. To turn off the receiver, press MAIN I/⏻ (on/standby) again.

Note

- After you turn off the receiver, [STANDBY] flashes on the display panel. Do not disconnect the AC power cord (mains lead) while [STANDBY] is flashing. This may cause a malfunction.

---

[24] Preparation | Initial setup of the receiver

Setting up the receiver using the Easy Setup

When you turn on the receiver for the first time or after the receiver is initialized, the Easy Setup screen appears on the TV screen. You can set up the following settings for the receiver by following the instructions on the Easy Setup screen.

- Auto Calibration
  Perform automatic calibration in accordance with your speaker system configuration and arrangement.
- Internet Setup
  Configure settings to connect the receiver to the network.

Note

- Switch the input of the TV to the input to which the receiver is connected to use this function.

If the Easy Setup screen does not appear or you want to display the Easy Setup screen

manually, you can display it by selecting [Setup] - [Easy Setup] from the home menu.

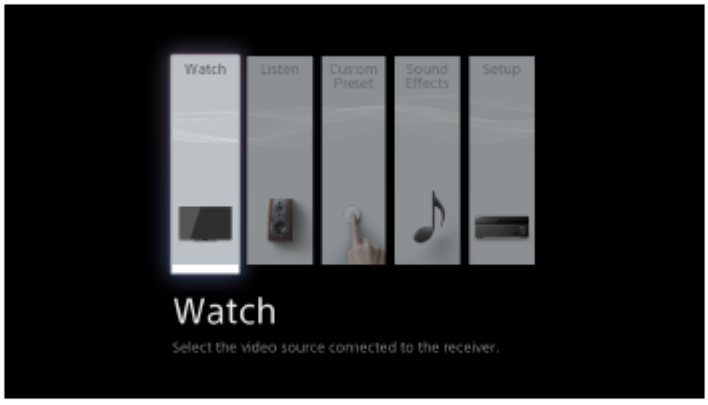
---

[25] Enjoying Video and Sound | Basic operations

Using the menu on the TV screen

You can display the menu of the receiver on the TV screen.

1. Switch the input of the TV to the input to which the receiver is connected.
2. Press HOME to display the home menu on the TV screen.



3. Press ↑ / ↓ / ← / → repeatedly to select the menu you want, then press ⊕ to enter the menu.

Home menu items

Watch: Select to display video from the connected device.
Listen: Select to listen to sound from the connected device.
Custom Preset: Select to save various settings for the receiver and recall those settings.
Sound Effects: Select to enjoy sound effects.
Setup: Select to adjust the various settings for the receiver.

Hint

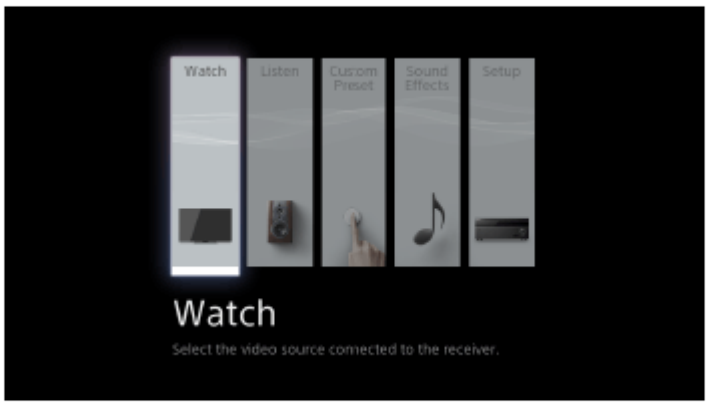
- When [OPTIONS] appears in the lower right portion of the TV screen, you can display the function list by pressing OPTIONS and selecting a related function.
- To return to the previous screen, press RETURN.
- To exit the menu, press HOME to display the home menu, then press HOME again.

---

[26] Enjoying Video and Sound | Basic operations

Enjoying video/sound from the connected device

1. Switch the input of the TV to the input to which the receiver is connected.
2. Press HOME.
   The home menu is displayed on the TV screen.
   Depending on the TV, the home menu may take some time to appear on the TV screen.



3. Select [Watch] or [Listen] from the home menu.
   The menu item list appears on the TV screen.
4. Select the device you want.
5. Turn on the device and start playback.
6. Press +/– to adjust the volume.
   You can also use MASTER VOLUME on the receiver.
7. Press 2CH/A.DIRECT, A.F.D., MOVIE or MULTI ST. to enjoy the surround sound.
   You can also use 2CH/A.DIRECT, A.F.D., MOVIE or MULTI ST. on the receiver. For details, see “Selecting a sound field (Sound Field).”

Note

- Before you turn off the receiver, be sure to turn down the volume level to avoid damaging your speakers.

Hint

- You can select the device you want by pressing the input buttons on the remote control or the receiver.
- You can adjust the volume differently using the MASTER VOLUME knob on the receiver or the +/– buttons on the remote control.
  To turn the volume up or down quickly
  - Turn the knob quickly.
  - Press and hold one of the buttons.

To make fine adjustments

- Turn the knob slowly.
- Press one of the buttons and release it immediately.

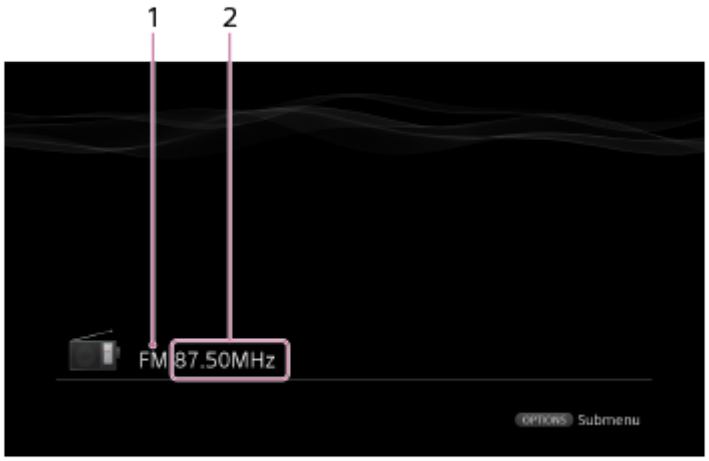
Listening to FM/AM radio

You can listen to FM and AM broadcasts through the built-in tuner. Before operation, be sure you have connected the FM and AM antennas (aerials) to the receiver.

1. Select [Listen] - [FM TUNER] or [AM TUNER] from the home menu.
   The FM/AM screen appears.
   To switch the screen mode, press OPTIONS and select [Simple] or [Full] in [FM/AM Display] from the options menu.

FM/AM screen (Simple mode)

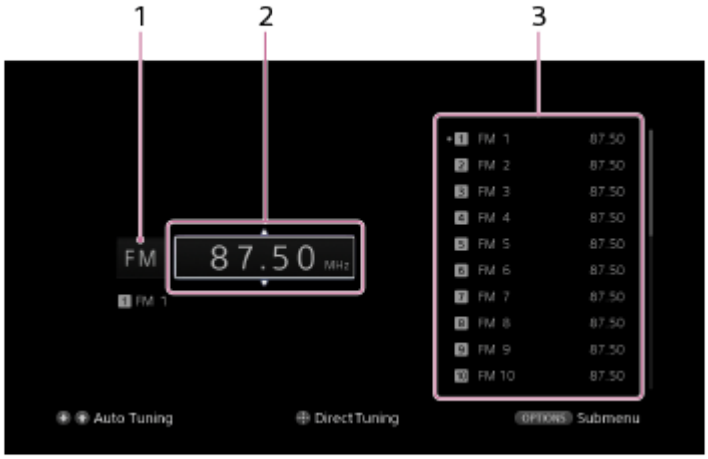
The Simple mode screen appears in the default setting.



1. **Band indication**
   You can select [FM] or [AM] by pressing the FM or AM.
2. **Frequency indication**
   You can tune to a station automatically by pressing TUNING +/-. The receiver stops scanning whenever a station is received.
   You can also select a preset station by pressing PRESET +/-.

FM/AM screen (Full mode)

You can select and operate each item on the screen by pressing ↑ / ↓ / ← / → and ⊞.



1. **Band indication**
   You can select [FM] or [AM] by pressing ↑ / ↓ repeatedly.
2. **Frequency indication**
   You can tune to a station automatically by pressing ↑ / ↓ repeatedly (Auto Tuning).
   Press ↑ to scan from lower to higher frequency stations or press ↓ to scan from higher to lower stations.
   The receiver stops scanning whenever a station is received.
3. **Preset station list**
   You can tune to a station by selecting the preset number from the list.

Presetting FM/AM radio stations (Preset Memory)

You can store up to 30 FM and 30 AM stations as your favorite stations.

1. Select [Listen] - [FM TUNER] or [AM TUNER] from the home menu.
   If the Simple mode screen appears, switch to the Full mode screen.
2. Tune to the station that you want to preset.
3. Press OPTIONS.
4. Select [Preset Memory] from the options menu.
5. Select a preset number.
   The station is stored as the selected preset number.
6. Repeat steps 1 to 5 to store another station.
   You can store stations as follows:
   - **AM band:** AM 1 to AM 30

FM band: FM 1 to FM 30

Tuning to a station directly (Direct Tuning)

You can enter the frequency of a station directly.

1. Select [Listen] - [FM TUNER] or [AM TUNER] from the home menu.
   If the Simple mode screen appears, switch to the Full mode screen.
2. Press ↑ / ↓ / ← / → to select the Frequency indication and then press ⊹.
3. Enter the frequency using ↑ / ↓ / ← / →.
   i. Press ← / → to select a digit.
   ii. Press ↑ / ↓ to change the digit.
4. Press ⊹.

Note

- If the tuned frequency is invalid or out of range, [---.-- MHz] or [---- kHz] appears and then the screen returns to the current frequency.
  Make sure you have entered the right frequency. If not, repeat steps 3 and 4. If you still cannot tune to a station, the frequency may not be in use in your area.

Hint

- Adjust the direction of the AM loop antenna (aerial) for optimum reception upon tuning to an AM station.
- The tuning scale for direct tuning is shown below:
  – USA and Canada
  FM: 100 kHz
  AM: 10 kHz (*)
  – other area
  FM: 50 kHz
  AM: 9 kHz

* The AM tuning scale can be changed. For details, see “Changing the AM tuning scale.”

[30] Enjoying Video and Sound │ Listening to the radio

Changing the AM tuning scale

You can change the AM tuning scale to either 9 kHz or 10 kHz using the buttons on the receiver.
Be sure to use the buttons on the receiver to perform this operation.

1. Turn off the receiver.
2. Hold down TUNING MODE and press I/⏻ (on/standby) on the receiver.
   The current AM tuning scale is changed to 9 kHz (or 10 kHz). To reset the scale to 10 kHz (or 9 kHz), repeat the procedure above.

Note

- Depending on the settings, the receiver may take some time to change the AM tuning scale.
- All preset stations will be erased when you change the tuning scale.

[31] Enjoying Video and Sound │ Enjoying sound effects

Selecting a sound field (Sound Field)

You can select from a variety of sound field modes according to speaker connections or input sources.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Sound Field].
3. Select the sound field you want.
   For details on each sound field, see the following topics.
   - 2-channel sound mode
   - Auto Format Direct (A.F.D.)
   - Movie mode
   - Multi Stereo

Note

- The sound fields for movie may not work, depending on the input or the speaker pattern you select, or with audio formats.
- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals, depending on the audio format.
- [Pro Logic IIx] may not appear, depending on the speaker pattern you select.
- Some speakers or the subwoofer may not output sound, depending on the sound field setting.
- If there is any noise present, the noise may be different, depending on the sound field you select.

Hint

- You can also select [Sound Field] in [Sound Effects] from the home menu.
- You can also use 2CH/A.DIRECT, A.F.D., MOVIE or MULTI ST. on the remote control or the receiver to select a sound field.

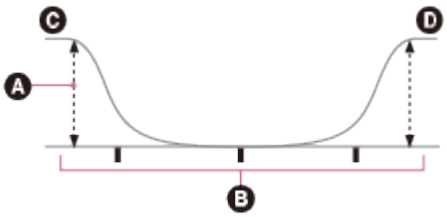
Resetting sound fields to the default settings

Be sure to use the buttons on the receiver to perform this operation.

1. Turn off the receiver.
2. Hold down MULTI ST. and press I/⏻ (on/standby) on the receiver.
   [S.F. INITIALIZED!] appears on the display panel and all sound fields are reset to their default setting.

Adjusting the equalizer (Equalizer)

You can use the following parameters to adjust the tonal quality (bass/treble level) of the front, center, surround/surround back and front high speakers.



Ⓐ Level (dB)
Ⓑ Frequency (Hz)
Ⓒ Bass
Ⓓ Treble

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Equalizer].
3. Select [Front Speaker], [Center Speaker], [Surround] or [Front High].
4. Select [Bass] or [Treble].
5. Adjust the gain.

Note

- This function does not work in the following cases:
  - [2ch Analog Direct] is selected.
  - [Pure Direct] is set to [On].
- Frequencies for [Bass] and [Treble] are fixed.
- Depending on the audio format, the receiver may play signals at a lower sampling frequency than the original sampling frequency of the input signals.

Hint

- You can also select [Equalizer] in [Sound Effects] from the home menu.

Enjoying clear and dynamic sound at a low volume (Sound Optimizer)

You can enjoy clear and dynamic sound at low volume levels using the Sound Optimizer. After the Auto Calibration is performed, the sound level is optimized to suit your environment.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Sound Optimizer].
3. Select the setting you want.
   - **Normal:** Adjusts for the reference level of a movie.
   - **Low:** Adjusts for a CD or other software whose average sound pressure level is

processed highly.

- **Off**

Note

- This function does not work in the following cases:
  - [2ch Analog Direct] is selected.
  - [Pure Direct] is set to [On].
- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals, depending on the audio format.

Hint

- You can also select [Sound Optimizer] in [Sound Effects] from the home menu.

Enjoying more natural sound with speakers installed in the ceiling (In-Ceiling Speaker Mode)

Set whether or not to use in-ceiling speaker mode with the current input.
In a setup where the front and center speakers are installed in the ceiling, lowering the audio output position to the screen height allows you to enjoy a more natural experience.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [In-Ceiling Speaker Mode].
3. Select [On].

Note

- This function does not work in the following cases:
  - [2ch Analog Direct] is selected.
  - A speaker pattern with the front high speakers is selected.
  - [Pro Logic II], [Pro Logic IIx] or [Neo:6] is selected.
  - [Pure Direct] is set to [On].
- This function may not work depending on the audio format.
- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals depending on the audio format.

Hint

- You can also switch this function on/off for each input on the Input Setup screen.
- You can also select [In-Ceiling Speaker Mode] in [Sound Effects] from the home menu.
- You can also switch the function on/off by pressing IN-CEILING SP on the remote control or the receiver.
- To obtain optimal effects in the listening environment, configure the [Ceiling Speaker Height] setting and perform Auto Calibration.

Enjoying high-fidelity sound (Pure Direct)

You can enjoy higher-fidelity sound from all inputs using the Pure Direct function. When the Pure Direct function is on, the display panel lights off to suppress noise that affects sound quality.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Pure Direct].
3. Select [On].

Canceling Pure Direct

The Pure Direct function will be canceled when you perform the following:

- Select [Off] in step 3.
- Press PURE DIRECT.
- Change the sound field.
- Change the scene setting on the TV (Scene Select).
- Change the setting of [Equalizer], [Sound Optimizer], [Dynamic Range Compressor] or [In-Ceiling Speaker Mode].

Note

- [Equalizer], [Sound Optimizer], [Dynamic Range Compressor] and [In-Ceiling Speaker Mode] do not work when the Pure Direct function is selected.

Hint

- You can also use PURE DIRECT to turn the Pure Direct function on or off.
- You can also select [Pure Direct] in [Sound Effects] from the home menu.

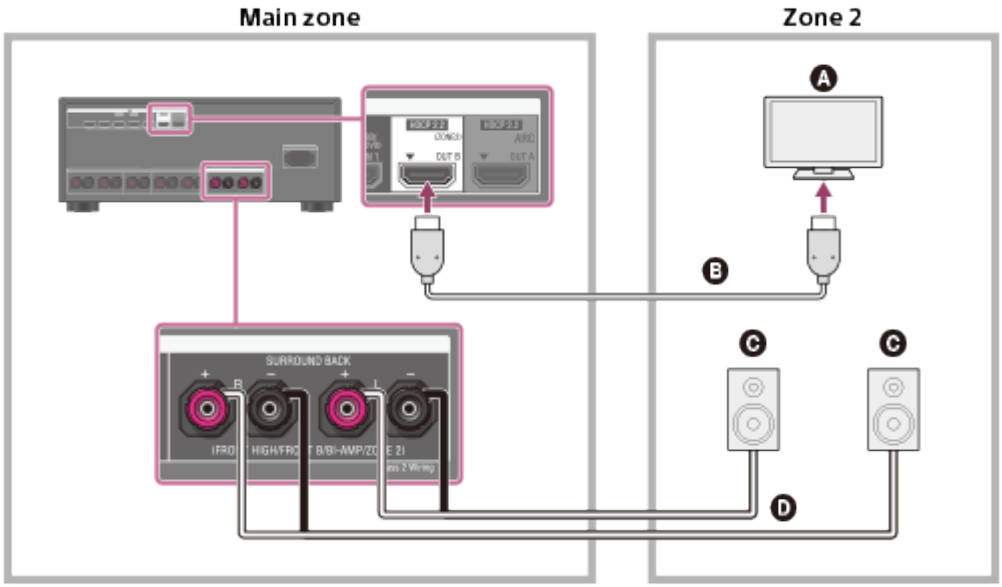
---

using the receiver with 2 pairs of speakers)

Connecting the speakers in zone 2

You can enjoy sound from a device connected to the receiver in a zone other than the main zone. For example, you can watch a DVD in the main zone and listen to a CD in zone 2.

Connect each speaker as illustrated below.
Be sure to disconnect the AC power cord (mains lead) before connecting cables. For details on how to connect speaker cables to the receiver, see “How to connect speaker cables.”



Ⓐ TV
Ⓑ HDMI cable (not supplied)
Ⓒ Speakers
Ⓓ Speaker cable (not supplied)

Note

- The following settings are required for this connection.
  - Set [HDMI Out B Mode] in the HDMI Setup menu to [Zone2]
  - Set [Zone2 Audio Out] in the HDMI Setup menu to [Zone2 TV + AMP]
- Turn the volume of the TV down or set [Zone2 Audio Out] in the HDMI Setup menu to [AMP] if you do not want to output sound from the TV in zone 2.
- You cannot remedy the time gap between video on zone 2 TV and audio from zone 2 speakers using the A/V Sync function.
- When using this zone 2 connection, you need to set up the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals. For details, see “Setting the speakers for zone 2.”

using the receiver with 2 pairs of speakers)

Setting the speakers for zone 2

When the speakers in zone 2 are connected to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals of the receiver, configure the settings so that the sound selected in zone 2 is output from the speakers connected to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Speaker Pattern].
3. Set a speaker pattern without surround back and front high speakers.
4. Select [SB Speaker Assign] - [Zone2].

Note

- If a speaker pattern with surround back speakers or front high speakers is set, you cannot set the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals for a bi-amplifier connection or a zone 2 connection.

Enjoying sound in zone 2/3

You can enjoy sound from the receiver in zone 2 or zone 3 by the following procedure.

1. Turn on the amplifier in zone 2 or zone 3.
   In the case of “Connecting the speakers in zone 2,” skip this step.
2. Press ZONE2 or ZONE3.
   The power in zone 2 or zone 3 turns on and output is enabled in zone 2 or zone 3.
3. Press one of the input buttons to select the source signals you want to output.
4. Adjust to a suitable volume.
   - In the case of “Connecting the speakers in zone 2,” adjust the volume using MASTER VOLUME on the receiver while [ZONE2 INPUT - xxx (input name)] is shown on the display panel.
   - In the case of “Connecting another amplifier in zone 2/3,” adjust the volume using

the receiver in zone 2 or zone 3. If you set [Zone2 Line Out] or [Zone3 Line Out] to [Variable], you can also adjust the volume in zone 2 or zone 3 using MASTER VOLUME on the receiver while [ZONE2 INPUT - xxx (input name)] is shown on the display panel.

Exiting zone 2 or zone 3 operation

Press ZONE2 or ZONE3.
The power in zone 2 or zone 3 turns off and output is disabled in zone 2 or zone 3.

Available input for zone 2 or zone 3 operations

For zone 2, HDMI signals, component video signals, optical/coaxial audio signals, analog video and audio signals are output. For zone 3, only analog audio signals are output.

- **Zone 2**: SOURCE (*1), BD/DVD, GAME, STB, SAT/CATV, VIDEO, AUX, TV, SA-CD/CD, TUNER (*2)
- **Zone 3**: SOURCE (*1), VIDEO, AUX, TV, SA-CD/CD, TUNER (*2)

*1 The signals of the current input in main zone are output when [SOURCE] is selected.

*2 When [FM TUNER] or [AM TUNER] are selected at the same time in the main zone and zone 2 or zone 3, the item most recently selected will be set.

Note

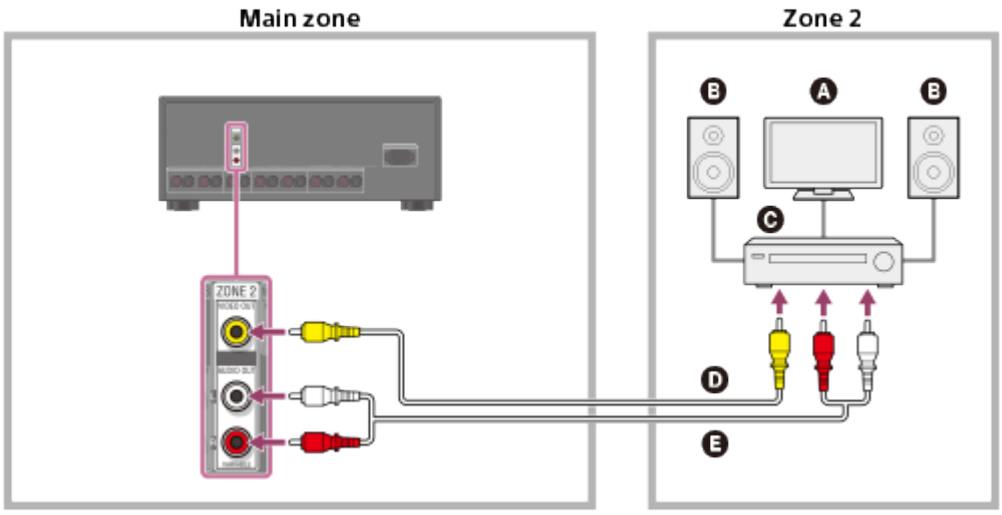
- When the receiver is in standby mode, the I/⏻ (on/standby) indicator on the front panel lights up in amber if the receiver in zone 2 or zone 3 is turned on.
- Audio signals are not output to zone 2 when receiving a DSD signal via HDMI.
- Digital audio signals are output to zone 2 only when receiving a 2ch PCM signal. Digital audio stream signals such as Dolby Digital signals are not output to zone 2. When outputting optical/coaxial audio signals, set the audio output to PCM on the connected device. For details, refer to the operating instructions of the connected device.
- If you change the sound field or speaker settings in the main zone while the input for zone 2 is set to SOURCE or the same input is selected in the main zone and zone 2, the sound may also be momentarily interrupted in zone 2.

Connecting another amplifier in zone 2/3

You can enjoy image (*) and sound from a device connected to the receiver in a zone other than the main zone. For example, you can watch a DVD in the main zone and listen to a CD in zone 2.

*

Connecting another amplifier using the ZONE 2 VIDEO/AUDIO OUT jack



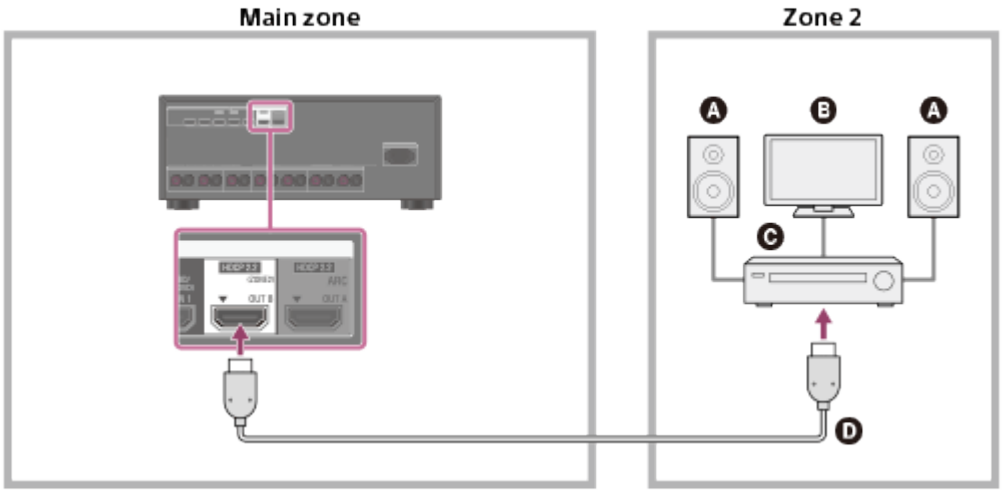
- **A TV monitor**
- **B Speakers**
- **C Other amplifier/receiver**
- **D Video cable (not supplied)**
- **E Audio cable (not supplied)**

Note

- Stream input signals cannot be output even when outputting optical/coaxial audio signals.
- When outputting optical/coaxial audio signals, set the audio output to PCM on the connected device. For details, refer to the operating instructions of the connected device.

Connecting another amplifier using the HDMI OUT B jack

HDMI video/audio input signals, optical/coaxial audio input signals are output to zone 2 using HDMI OUT B jack on the receiver.



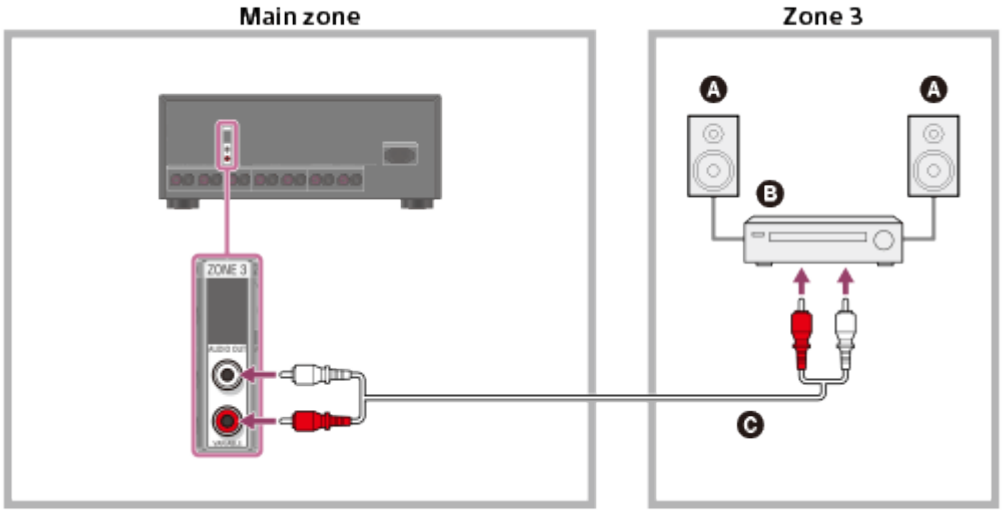
- **A Speakers**
- **B TV**

Ⓒ Other amplifier/receiver
Ⓓ HDMI cable (not supplied)

Note

- The following settings are required for this connection.
  - Set [HDMI Out B Mode] in the HDMI Setup menu to [Zone2]
  - Set [Zone2 Audio Out] in the HDMI Setup menu to [Zone2 AMP]
- When outputting optical/coaxial audio signals, set the audio output to PCM on the connected device. For details, refer to the operating instructions of the connected device.

Connecting another amplifier using the ZONE 3 AUDIO OUT jack



Ⓐ Speakers
Ⓑ Other amplifier/receiver
Ⓒ Audio cable (not supplied)

Note

- Only devices connected to the analog audio input jacks and the built-in tuner (FM/AM) can output signals to Zone 3. No signals are output from devices connected to only the digital input jacks.

Setting the volume control for zone 2/3 (Line Out)

You can set variable or fixed volume control for the ZONE 2 AUDIO OUT/ZONE 3 AUDIO OUT jacks.

1. Select [Setup] - [Zone Setup] from the home menu.

2. Select [Zone2 Line Out] or [Zone3 Line Out].
3. Select the setting you want.
   - **Variable:**
     Select when you cannot adjust the volume level on the amplifier in zone 2 or zone 3. The volume level of the receiver output in zone 2 or zone 3 will become adjustable.
   - **Fixed:**
     Select to adjust the volume on the amplifier in zone 2 or zone 3. The volume level of the receiver output in zone 2 or zone 3 on the receiver will be fixed.

Note

- When [Variable] is set, the volume is turned down by default. Turn up the volume while listening to the sound after completing setup.

Setting the zone 2 HDMI audio output of connected devices (Zone2 Audio Out)

You can set the zone 2 HDMI audio signal output for playback devices connected to the receiver via an HDMI connection.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Zone2 Audio Out].
3. Select the setting you want.
   - **AMP:**
     Recommended setting when a TV is connected directly to HDMI OUT B jack.
     Sound is output from the speakers connected to the receiver.
     Sound is not output from the TV speakers.
   - **Zone2 TV + AMP:**
     Recommended setting when a TV is connected directly to HDMI OUT B jack.
     Sound is output from the TV speakers and the speakers connected to the receiver.
   - **Zone2 AMP:**
     Recommended setting when another amplifier is connected to HDMI OUT B jack.
     Sound is output from the another receiver connected to HDMI OUT B jack.
     Sound is not output from ZONE 2 SPEAKER OUT terminals and ZONE 2 AUDIO

OUT jacks.

Note

- You can only configure this setting only when [HDMI Out B Mode] is set to [Zone2].
- When a video device (projector, etc.) is connected to the ZONE 2 HDMI OUT jack, sound may not be output from the receiver. In this case, set [Zone2 Audio Out] to [AMP].
- When a TV which does not support audio content protection is connected to the HDMI OUT B jack, specific audio may not be output from the receiver. In this case, set [Zone2 Audio Out] to [AMP].
- When [Zone2 Audio Out] is set to [Zone2 TV + AMP] or [AMP], audio signals will be downmixed. The following restrictions apply to downmixing.
  - Audio signals are not output to zone 2 when receiving a DSD signal.
  - If you change the sound field or speaker settings in the main zone while the input for zone 2 is set to SOURCE or the same input is selected in the main zone and zone 2, the sound may also be momentarily interrupted in zone 2.
  - The D.L.L. function does not work in the main zone.
  - The volume level of sound from ZONE 2 SPEAKER OUT terminals and HDMI OUT B jack may be different from sound that is not downmixed.
- No sound will be output to zone 2 if you play a DTS-CD with different HDMI inputs selected in the main zone and zone 2.
- You cannot remedy the time gap between video output on the TV connected to HDMI OUT B jack and audio output from the speaker connected to ZONE 2 SPEAKER OUT terminals using the A/V Sync function.

Setting the priority for the main zone (Priority)

Lets you set the priority when you select the same input for both the main zone and zone 2.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Set [Priority].
   - **Main & Zone2:**
     You can enjoy the same input in the main zone and zone 2. However, there may be some interference in the audio and video signals in the main zone and zone 2.
   - **Main Only:**
     You can enjoy good audio and video quality in the main zone. There is no output in zone 2.

Note

- This function is enabled only when [HDMI Out B Mode] is set to [Zone2].

Enjoying sound in zone 2/3

You can enjoy sound from the receiver in zone 2 or zone 3 by the following procedure.

1. Turn on the amplifier in zone 2 or zone 3.
   In the case of “Connecting the speakers in zone 2,” skip this step.
2. Press ZONE2 or ZONE3.
   The power in zone 2 or zone 3 turns on and output is enabled in zone 2 or zone 3.
3. Press one of the input buttons to select the source signals you want to output.
4. Adjust to a suitable volume.
   - In the case of “Connecting the speakers in zone 2,” adjust the volume using MASTER VOLUME on the receiver while [ZONE2 INPUT - xxx (input name)] is shown on the display panel.
   - In the case of “Connecting another amplifier in zone 2/3,” adjust the volume using the receiver in zone 2 or zone 3. If you set [Zone2 Line Out] or [Zone3 Line Out] to [Variable], you can also adjust the volume in zone 2 or zone 3 using MASTER VOLUME on the receiver while [ZONE2 INPUT - xxx (input name)] is shown on the display panel.

Exiting zone 2 or zone 3 operation

Press ZONE2 or ZONE3.
The power in zone 2 or zone 3 turns off and output is disabled in zone 2 or zone 3.

Available input for zone 2 or zone 3 operations

For zone 2, HDMI signals, component video signals, optical/coaxial audio signals, analog video and audio signals are output. For zone 3, only analog audio signals are output.

- **Zone 2**: SOURCE (*1), BD/DVD, GAME, STB, SAT/CATV, VIDEO, AUX, TV, SA-CD/CD, TUNER (*2)
- **Zone 3**: SOURCE (*1), VIDEO, AUX, TV, SA-CD/CD, TUNER (*2)

*1

The signals of the current input in main zone are output when [SOURCE] is selected.

*2 When [FM TUNER] or [AM TUNER] are selected at the same time in the main zone and zone 2 or zone 3, the item most recently selected will be set.

Note

- When the receiver is in standby mode, the I/⏻ (on/standby) indicator on the front panel lights up in amber if the receiver in zone 2 or zone 3 is turned on.
- Audio signals are not output to zone 2 when receiving a DSD signal via HDMI.
- Digital audio signals are output to zone 2 only when receiving a 2ch PCM signal. Digital audio stream signals such as Dolby Digital signals are not output to zone 2. When outputting optical/coaxial audio signals, set the audio output to PCM on the connected device. For details, refer to the operating instructions of the connected device.
- If you change the sound field or speaker settings in the main zone while the input for zone 2 is set to SOURCE or the same input is selected in the main zone and zone 2, the sound may also be momentarily interrupted in zone 2.

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[45] Using Other Features ｜ Interlocking with BRAVIA TV and other devices (“BRAVIA” Sync)

What is “BRAVIA” Sync?

The “BRAVIA” Sync function allows communication between products made by Sony such as TVs, Blu-ray Disc Players, DVD players, and AV amplifiers that support the Control for HDMI function.
Control for HDMI is a mutual control function standard used by HDMI CEC (Consumer Electronics Control) for HDMI (High-Definition Multimedia Interface).
We recommend that you connect the receiver to products featuring “BRAVIA” Sync.

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[46] Using Other Features ｜ Interlocking with BRAVIA TV and other devices (“BRAVIA” Sync)

Preparing for “BRAVIA” Sync

Turn on the Control for HDMI function of the receiver and the connected device to individually.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Control for HDMI].

3. Select [On].
   The Control for HDMI function of the receiver is turned on.
4. Press HOME to exit the GUI menu.
5. Select the HDMI input of the receiver and TV to match the HDMI input of the connected device, so that the image from the connected device is displayed.
6. Turn on the Control for HDMI function of the connected device.
   For details on setting the TV and connected device, refer to the operating instructions of the respective devices.
7. Repeat steps 5 and 6 for other devices for which you want to use the Control for HDMI function.

Note

- Perform the steps above again if you unplug the HDMI cable or change the connection.
- This function is enabled only when [HDMI Out B Mode] is set to [Main].

Interlocking other devices using an HDMI connection (“BRAVIA” Sync)

By connecting devices made by Sony that support the “BRAVIA” Sync function using an HDMI cable (not supplied), operations are simplified as follows:

- Enjoying an input source from a connected device immediately (One-Touch Play)
- Enjoying TV sound from the speakers connected to the receiver (System Audio Control)
- Turning off the receiver and connected devices simultaneously with the TV (System Power-Off)
- Selecting the optimum picture quality and sound field automatically (Scene Select)
- Home Theatre Control
- Operating the receiver menu using the TV remote control (Remote Easy Control)

Note

- The “One-Touch Play,” “System Audio Control,” and “System Power-Off” functions can be used with devices not made by Sony. However, compatibility with all devices not made by Sony is not guaranteed.

- The “Scene Select” and “Home Theatre Control” functions are Sony's proprietary functions. These cannot operate with devices not made by Sony.
- Devices incompatible with “BRAVIA” Sync cannot activate these features.
- The Control for HDMI function does not work on devices connected to the HDMI OUT B jack of the receiver.

Enjoying sound of TV broadcasts from the receiver

If your TV supports the Audio Return Channel (ARC) function, set the receiver by the following procedure to output the sound of the TV from the speakers connected to the receiver.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Control for HDMI].
3. Select [On].

If you connect to a TV that is not compatible with the Audio Return Channel (ARC) function or you want to select an audio signal using a cable other than an HDMI cable (e.g. via an optical digital cable or an audio cable)

Switch the audio input mode. For details, see “Switching between digital and analog audio (Input Mode).”

Note

- Be sure to turn off the volume of the TV or activate the muting function of the TV.

Switching the monitors that output the HDMI video signals

If you have connected two monitors to the HDMI OUT A and HDMI OUT B jacks, you can switch the output for these two monitors using the HDMI OUTPUT button on the remote control.

1. Turn on the receiver and the two monitors.
2. Press HDMI OUTPUT.
   Each time you press the button, the output will be switched as follows:
   HDMI A - HDMI B (*) - HDMI A+B (*) - HDMI OFF

   * Unavailable when [HDMI Out B Mode] is set to [Zone2].

Note

- [HDMI A+B] may not work if the compatible video formats of the monitors connected to the HDMI OUT A jack and the HDMI OUT B jack of the receiver are different.
- [HDMI A+B] may not work depending on the playback device you connect.

Hint

- You can also use HDMI OUT on the receiver to switch the monitor.

Switching between digital and analog audio (Input Mode)

When you connect devices to both digital and analog audio input jacks on the receiver, you can fix the audio input mode to either device, or switch from one to the other, depending on the type of material you intend to watch.

1. Press the input buttons to select the input.
2. Press OPTIONS.
3. Select [Input Mode].
   - **Auto:** Gives priority to digital audio signals. If there is more than one digital connection, HDMI audio signals have priority.
     If there is no digital audio signals, analog audio signals are selected. When TV input is selected, priority is given to Audio Return Channel (ARC) signals. If your TV supports the ARC function, digital optical audio signals are selected.
   - **Optical:** Specifies input of digital audio signals to the OPTICAL jack.
   - **Coaxial:** Specifies input of digital audio signals to the COAXIAL jack.
   - **Analog:** Specifies input of analog audio signals to the AUDIO IN (L/R) jacks.

Note

Depending on the input, [Input Mode] may be dimmed on the TV screen and other modes cannot be selected.

- When [2ch Analog Direct] is being used, audio input is set to [Analog]. You cannot select other modes.

Using other video/audio input jacks (Input Assign)

You can reassign video and/or audio signals to other input jacks if the default settings of the jacks do not correspond to your connected device.

E.g. When connecting a DVD player to the OPTICAL IN 1 (AUX) and COMPONENT VIDEO IN 2 (VIDEO) jacks of the receiver:

- Assign [BD/DVD] to the OPTICAL IN 1 (AUX) jack.
- Assign [BD/DVD] to the COMPONENT VIDEO IN 2 (VIDEO) jack.

1. Select [Setup] - [Input Setup] from the home menu.
2. Select [BD/DVD].
3. Press ➡ repeatedly to select [COAX] under [OPTICAL / COAXIAL] and ⬆ / ⬇ repeatedly to select [OPT 1].
4. Press ➡ repeatedly to select [IN 1] under [COMPONENT] and ⬆ / ⬇ repeatedly to select [IN 2].

Assignable HDMI input jacks (for STR-ZA3000ES/STR-ZA2000ES)

IN 1:

BD/DVD (*), SAT/CATV, GAME, STB, VIDEO, AUX, TV, SA-CD/CD

IN 2:

BD/DVD, SAT/CATV (*), GAME, STB, VIDEO, AUX, TV, SA-CD/CD

IN 3:

BD/DVD, SAT/CATV, GAME, STB (*), VIDEO, AUX, TV, SA-CD/CD

IN 4:

BD/DVD, SAT/CATV, GAME, STB, VIDEO (*), AUX, TV, SA-CD/CD

IN 5:

BD/DVD, SAT/CATV, GAME, STB, VIDEO, AUX, TV, SA-CD/CD (*)

IN 6:

BD/DVD, SAT/CATV, GAME (*), STB, VIDEO, AUX, TV, SA-CD/CD

None:

BD/DVD, SAT/CATV, GAME, STB, VIDEO, AUX (*), TV (*), SA-CD/CD

Assignable HDMI input jacks (for STR-ZA1000ES)

IN 1:

BD/DVD (*), SAT/CATV, GAME, STB, VIDEO, AUX, TV, SA-CD/CD

IN 2:

BD/DVD, SAT/CATV (*), GAME, STB, VIDEO, AUX, TV, SA-CD/CD

IN 3:

BD/DVD, SAT/CATV, GAME (*), STB, VIDEO, AUX, TV, SA-CD/CD

IN 4:

BD/DVD, SAT/CATV, GAME, STB (*), VIDEO, AUX, TV, SA-CD/CD

IN 5:

BD/DVD, SAT/CATV, GAME, STB, VIDEO, AUX, TV, SA-CD/CD (*)

None:

BD/DVD, SAT/CATV, GAME, STB, VIDEO (*), AUX (*), TV (*), SA-CD/CD

Assignable COMPONENT VIDEO input jacks

IN 1:

BD/DVD (*), SAT/CATV, GAME, STB, VIDEO, AUX, TV, SA-CD/CD

IN 2:

BD/DVD, SAT/CATV, GAME, STB, VIDEO (*), AUX, TV, SA-CD/CD

None:

BD/DVD, SAT/CATV (*), GAME (*), STB (*), VIDEO, AUX (*), TV (*), SA-CD/CD (*)

Assignable OPTICAL / COAXIAL input jacks

OPT 1:

BD/DVD, SAT/CATV, GAME, STB, VIDEO, AUX (*), TV, SA-CD/CD

OPT 2:

BD/DVD, SAT/CATV, GAME, STB, VIDEO, AUX, TV (*), SA-CD/CD

COAX:

BD/DVD (*), SAT/CATV, GAME, STB, VIDEO, AUX, TV, SA-CD/CD

None:

BD/DVD, SAT/CATV (*), GAME (*), STB (*), VIDEO (*), AUX, TV, SA-CD/CD (*)

* Default setting

Note

- When you assign the digital audio input, the Input Mode setting may change automatically.
- One reassignment is allowed for each input.
- If no sound is output from the assigned jacks, also check the Input Mode settings.

---

[52] Using Other Features │ Saving and recalling various settings for the receiver (Custom Preset)

About Custom Preset

You can save various settings with the player, monitor, etc., according to your listening and viewing style. You can register those settings for “one-touch” operation, and then recall the environment created with the settings easily.
For example, by saving the settings in the [1: Movie] preset as follows, you can switch the settings of the receiver all at one time without switching each setting for [Input], [Calibration Type], and [Sound Field] individually.

- Input: BD/DVD
- Sound Field: HD-D.C.S.
- Calibration Type: No Change

---

[53] Using Other Features │ Saving and recalling various settings for the receiver (Custom Preset)

Recalling the settings saved to the scene

---

1. Select [Custom Preset] from the home menu.
2. Select a preset you want.

Hint

- You can recall the setting(s) saved for [1: Movie], [2: Music], [3: Party] or [4: Night] directly by pressing CUSTOM PRESET 1, CUSTOM PRESET 2, CUSTOM PRESET 3 or CUSTOM PRESET 4 on the remote control.

Saving the settings to a preset

1. Select [Custom Preset] from the home menu.
2. Press OPTIONS with a preset for which you want to edit settings among from [1: Movie], [2: Music], [3: Party] or [4: Night] selected.
3. Select the menu you want from the options menu.
   - **Edit:**
     Allows you to customize and save the settings to suit your preferences.
   - **Import:**
     Loads the present settings of the receiver and saves those settings with the preset. [Input] and [Volume] are set to [No Change].

Note

- Settings items saved as [No Change] are not changed from the present settings even when you recall the preset. Select [Edit], then uncheck the box for a setting item on the edit screen to set [No Change].

Hint

- You can overwrite [1: Movie], [2: Music], [3: Party] or [4: Night] with the present settings by holding down CUSTOM PRESET 1, CUSTOM PRESET 2 CUSTOM PRESET 3 or CUSTOM PRESET 4 for 3 seconds in the same way as you do when you select [Import] from the menu.
- When you select [3: Party], zone 2 and zone 3 are turned on automatically and you can simultaneously enjoy the same music as the main zone in these zones.

Items for which you can save settings and the default values for each item

1: Movie

- Preset Name: Movie
- Input: BD/DVD

- Tuner Preset: No Change
- Volume: No Change
- HDMI OUT: No Change
- Party Mode: No Change
- Sleep: No Change
- Sound Field: HD-D.C.S.
- Sound Optimizer: No Change
- In-Ceiling Speaker Mode: No Change
- Pure Direct: No Change
- Calibration Type: No Change
- Front Bass: No Change
- Front Treble: No Change
- Center Bass: No Change
- Center Treble: No Change
- Surround Bass: No Change
- Surround Treble: No Change
- Front High Bass: No Change
- Front High Treble: No Change

2: Music

- Preset Name: Music
- Input: SA-CD/CD
- Tuner Preset: No Change
- Volume: No Change
- HDMI OUT: No Change
- Party Mode: No Change
- Sleep: No Change
- Sound Field: Multi Stereo
- Sound Optimizer: No Change
- In-Ceiling Speaker Mode: No Change
- Pure Direct: No Change
- Calibration Type: No Change
- Front Bass: No Change
- Front Treble: No Change
- Center Bass: No Change
- Center Treble: No Change
- Surround Bass: No Change
- Surround Treble: No Change
- Front High Bass: No Change
- Front High Treble: No Change

3: Party

- Preset Name: Party
- Input: No Change

- Tuner Preset: No Change
- Volume: -23.0 dB
- HDMI OUT: No Change
- Party Mode: On
- Sleep: Off
- Sound Field: Multi Stereo
- Sound Optimizer: Off
- In-Ceiling Speaker Mode: No Change
- Pure Direct: No Change
- Calibration Type: No Change
- Front Bass: No Change
- Front Treble: No Change
- Center Bass: No Change
- Center Treble: No Change
- Surround Bass: No Change
- Surround Treble: No Change
- Front High Bass: No Change
- Front High Treble: No Change

4: Night

- Preset Name: Night
- Input: No Change
- Tuner Preset: No Change
- Volume: -44.5 dB
- HDMI OUT: No Change
- Party Mode: No Change
- Sleep: 0:30:00
- Sound Field: No Change
- Sound Optimizer: Normal
- In-Ceiling Speaker Mode: No Change
- Pure Direct: No Change
- Calibration Type: No Change
- Front Bass: No Change
- Front Treble: No Change
- Center Bass: No Change
- Center Treble: No Change
- Surround Bass: No Change
- Surround Treble: No Change
- Front High Bass: No Change
- Front High Treble: No Change

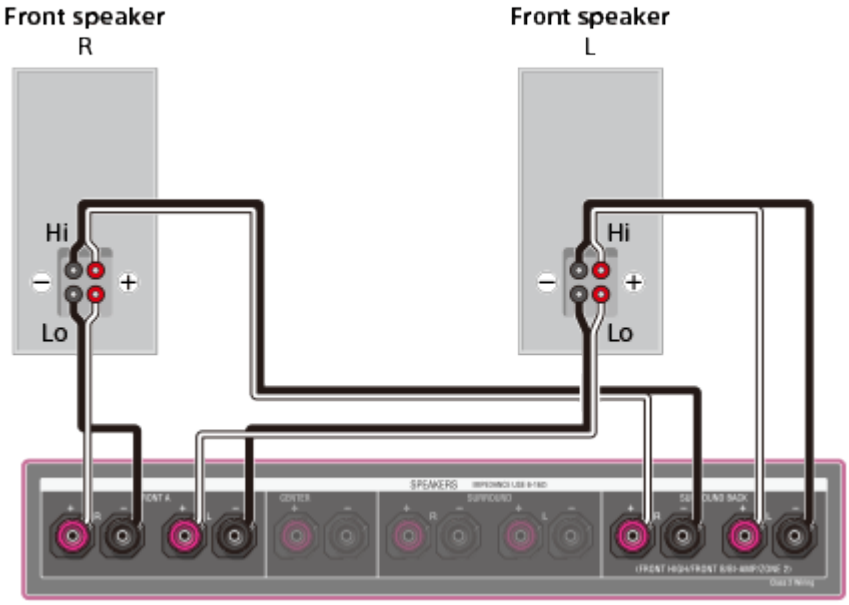
Adjusting the sound balance automatically (Auto Calibration)

This receiver is equipped with a D.C.A.C. (Digital Cinema Auto Calibration) function which allows you to perform automatic calibration. For details on performing this function, see the following topics:

- Before you perform Auto Calibration
- Connecting the optimizer microphone
- Selecting the front speakers
- Performing automatic calibration (Auto Calibration)

Using bi-amplifier connections

If you are not using surround back speakers or front high speakers, you can connect the front speakers to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals using a bi-amplifier connection.



Connect the jacks on the Lo (or Hi) side of the front speakers to the SPEAKERS FRONT A terminals, and connect the jacks on the Hi (or Lo) side of the front speakers to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals. Make sure that metal fittings of Hi/Lo attached to the speakers have been removed from the speakers to avoid receiver malfunction.

After you have made the bi-amplifier connection, set [SB Speaker Assign] in the Speaker Setup menu to [Bi-Amp].

Note

- You can only set [SB Speaker Assign] if the speaker pattern is set to a setting that does not have surround back and front high speakers.

Using the sleep timer (Sleep)

You can set the receiver to turn off automatically at a specified time.

1. Select [Setup] - [System Setup] from the home menu.
2. Select [Sleep].
3. Set specified time.
   - 2:00:00
   - 1:30:00
   - 1:00:00
   - 0:30:00
   - Off

   [SLEEP] lights up on the display panel of the receiver when sleep timer is being used.

Hint

- You can check the remaining time before the receiver turns off on the System Setup screen. Also, the remaining time appears on the bottom right of the TV screen when it becomes 1 minute or less.
- The sleep timer will be canceled if you perform the following:
  - Update the software of the receiver.
  - Turn the receiver on or off.

Viewing information on the display panel

The display panel provides various information on the status of the receiver, such as the sound field.

1. Select the input for which you want to check information.
2. Press DISPLAY repeatedly.
   Each time you press DISPLAY, the display will change cyclically as follows:
   Input name you entered (*1) or default input name, Sound field currently applied (*2) → Input name you entered (*1) or default input name, Stream information (*3) → Input name you entered, default input name (*1)

   ### When listening to FM and AM radio

   Band, Preset number, Preset station name (*1), Sound field currently applied (*2) → Band, Preset number, Frequency, Sound field currently applied (*2)

*1 Index name appears only when you have assigned one to the input or preset station. Index name does not appear if only blank spaces have been entered or it is same as the input name.

*2 [PURE.DIRECT] appears on the display panel when the Pure Direct function is activated.

*3 Stream Information is not displayed when analog signals are input. This may happen even when digital signals are input.

Note

- Characters or marks in some languages may not be displayed.

Changing the assignment and display for the input jacks

You can customize the settings for each input according to your preferences and usage. Select [Setup] - [Input Setup] from the home menu, then set each item shown below.

Input

You can change the settings of [Icon], [Name], [Watch/Listen], [Show/Hide], [HDMI], [OPTICAL / COAXIAL], [COMPONENT], [VIDEO IN], [AUDIO IN], [Input Mode], [Preset Sound Field], [In-Ceiling Speaker Mode], [A/V Sync], [Subwoofer Low Pass Filter], [Subwoofer Level], [Trigger 1] (for STR-ZA3000ES), [Trigger 2] (for STR-ZA3000ES), [Trigger 3] (for STR-ZA3000ES) and [Trigger] (for STR-ZA2000ES/STR-ZA1000ES) for the desired input.

Note

- The settings of [AUDIO IN] on the Input Setup screen are fixed.

Icon

You can set the icon displayed on the Watch/Listen menu.

Name

You can change the name displayed on the Watch/Listen menu. For details on how to set the name for each input, see “Changing the name for each input (Name).”

Watch/Listen

You can set whether an input is displayed on the Watch menu or the Listen menu.

- **Watch:** Displays an input to the Watch menu.
- **Listen:** Displays an input to the Listen menu.
- **Watch/Listen:** Displays an input to both the Watch and Listen menus.

Show/Hide

You can set whether or not an input is displayed.

- **Show:** Shows the input.
- **Hide:** Hides the input.

HDMI

You can assign HDMI input jacks for each input.

OPTICAL / COAXIAL

You can set the digital audio input jack(s) assigned to each input. For details, see “Using other video/audio input jacks (Input Assign).”

- **OPT 1**
- **OPT 2**
- **COAX**
- **None**

COMPONENT

You can set the video input jack(s) assigned to each input. For details, see “Using other video/audio input jacks (Input Assign).”

- **IN 1**
- **IN 2**
- **None**

VIDEO IN

You can set the composite video input jack(s) assigned to VIDEO IN 1 (VIDEO) or VIDEO IN 2 (AUX) input signal. For details, see “Using other video/audio input jacks (Input Assign).”

AUDIO IN

Indicates an analog signal is being input. For details, see “Using other video/audio input

jacks (Input Assign)."

Input Mode

You can set the input mode for each input. For details, see "Switching between digital and analog audio (Input Mode)."

Preset Sound Field

You can assign a default "Sound Field" to each input source that will be selected automatically when you select the input source.

In-Ceiling Speaker Mode

You can select whether or not to use the In-Ceiling Speaker Mode with the current input.

A/V Sync

You can delay the output of audio to minimize the time gap between audio output and visual display.

Subwoofer Low Pass Filter

You can turn on or off the low-pass filter for the subwoofer output. The low-pass filter works when PCM signals are input via an HDMI connection. You can set the function for each input to which an HDMI input jack is assigned independently. Turn the function on if you connect a subwoofer without the crossover frequency function.

Subwoofer Level

You can set the level of the subwoofer to 0 dB or +10 dB when PCM signals are input via an HDMI connection. You can set the level for each input to which an HDMI input jack is assigned independently.

Trigger 1 to 3 (for STR-ZA3000ES)

Trigger (for STR-ZA2000ES/STR-ZA1000ES)

You can select input options for use of the 12V Trigger function.

Changing the name for each input (Name)

You can enter up to 8 characters for each input name.

1. Select [Setup] - [Input Setup] from the home menu.
2. Select the input name you want to change.

3. Select [Name].
   An on-screen keyboard appears on the TV screen.
4. Press ↑ / ↓ / ← / → and ⊡ to select characters one by one to enter the name.
5. Select [Enter].
   The name you entered is registered.

Performing automatic calibration (Auto Calibration)

You can perform automatic calibration from where you are sitting.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Auto Calibration].
3. Follow the instructions on the TV screen, then press ⊡ to select [Start].
   The measurement starts in 5 seconds.
   The measurement process will take approximately 30 seconds with a test tone.
   When the measurement ends, a beep sounds and the screen switches.
4. Select the item you want.
   - **Save:** Saves the measurement results and exits the setting process.
   - **Retry:** Performs the Auto Calibration again.
   - **Discard:** Exits the setting process without saving the measurement results.

   For details on the measurement results, see “Checking Auto Calibration results.”
5. Save the measurement results.
   Select [Save] in step 4.

Calibration Matching

When Auto Calibration is executed, this function works automatically, matching the distance and level of the right and left speakers. You can set this function only after the D.C.A.C. measurement process has been completed and the results of the D.C.A.C. measurement are saved. The setting is valid until you change it.

Note

If an error code or warning message appears on the screen in step 3, see “List of messages after Auto Calibration measurements.”

Hint

- You can also perform automatic calibration by pressing the AUTO CAL button on the remote control. If you use the AUTO CAL button, the following restrictions apply to the operation:
  - Prior settings relating to the Auto Calibration will be skipped.
  - You can only use the display panel for the operation.
- The Auto Calibration function will be canceled if you perform the following during the measurement process:
  - Turn the receiver on or off.
  - Press the input buttons on the remote control or on the receiver.
  - Press 🔇.
  - Press SPEAKERS on the receiver.
  - Press HDMI OUTPUT.
  - Press AMP MENU.
  - Press HOME.
  - Press AUTO CAL.
  - Change the volume level.

---

[63] Adjusting Settings | Speaker Setup

Calibrating the phase characteristics of the speakers (Automatic Phase Matching)

You can set the A.P.M. (Automatic Phase Matching) function in the D.C.A.C. (Digital Cinema Auto Calibration). This calibrates the phase characteristics of the speakers for well-coordinated surround sound.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Automatic Phase Matching].
3. Select the setting you want.
   - **Auto:** Switches the A.P.M. function on or off automatically.
   - **Off**

Note

- This function does not work in the following cases:

– [2ch Analog Direct] is being used.
– [Auto Calibration] has not been performed.

- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals, depending on the audio format.

---

[64] Adjusting Settings | Speaker Setup

Selecting the Auto Calibration type (Calibration Type)

You can select a calibration type after you have performed the Auto Calibration and saved the settings.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Calibration Type].
3. Select the setting you want.
   - **Full Flat:** Makes the measurement of frequency from each speaker flat.
   - **Engineer:** Sets to “the Sony listening room standard” frequency characteristics.
   - **Front Reference :** Adjusts the characteristics of all of the speakers to match the characteristics of the front speaker.
   - **Off**

Note

- This function does not work when [2ch Analog Direct] is being used.
- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals, depending on the audio format.

---

[65] Adjusting Settings | Speaker Setup

Selecting the speaker pattern (Speaker Pattern)

You can select the speaker pattern according to the speaker system which you are using.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Speaker Pattern].

3. Select the speaker pattern you want.

[66] Adjusting Settings | Speaker Setup

Setting the assignment for the speaker terminals (SB Speaker Assign)

You can set the assignment for the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [SB Speaker Assign].
3. Set [SB Speaker Assign] to any of the following settings.
   - **Zone2**
     When using the zone 2 connection.
   - **Bi-Amp**
     When using the bi-amplifier connection.
   - **Front B**
     When using the front B speaker connection.
   - **Off**
     When none of the connections above are used.

Note

- When you change the connection from a bi-amplifier or speakers front B to surround back or front high speakers connection, set the [SB Speaker Assign] to [Off], then set up the speakers again.
- You can only set the assignment for the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals if the speaker pattern is set to 2/0, 2/0.1, 3/0, 3/0.1, 2/2, 2/2.1, 3/2, or 3/2.1.

[67] Adjusting Settings | Speaker Setup

Adjusting the speaker size (Size)

You can adjust the size of each speaker (front left/right, front high left/right, center, surround left/right, surround back left/right).

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Size].
3. Select the speaker on the screen for which you want to adjust the size.
4. Select the size you want.
   - **Large:** If you connect large speakers that will effectively reproduce bass frequencies, select [Large]. Select [Large] usually.
   - **Small:** If the sound is distorted, or you hear a lack of surround effects when using multi channel surround sound, select [Small]. You can activate the bass redirection circuitry and output the bass frequencies of each channel from the subwoofer or other [Large] speakers.

Hint

- The surround back speakers will be set to the same setting as that of the surround speakers.
- When the front speakers are set to [Small], the center, surround, and surround back/front high speakers are also automatically set to [Small].
- If you do not use the subwoofer, the front speakers are automatically set to [Large].

Adjusting the speaker distance (Distance)

You can adjust the distance from where you are sitting to each speaker (front left/right, front high left/right, center, surround left/right, surround back left/right, subwoofer).

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Distance].
3. Select the speaker on the screen for which you want to adjust the distance from where you are sitting.
4. Adjust the distance.

[69] Adjusting Settings | Speaker Setup

Adjusting the speaker level (Level)

You can adjust the level of each speaker (front left/right, front high left/right, center, surround left/right, surround back left/right and subwoofer).

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Level].
3. Select the speaker on the screen for which you want to adjust the speaker level.
4. Adjust the level.

[70] Adjusting Settings | Speaker Setup

Outputting a test tone from each speaker (Test Tone)

You can output a test tone from each speaker in sequence.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Test Tone].
3. Select the setting you want.
   - **Off**
   - **Auto:** The test tone is output from each speaker in sequence.
   - **Front L, Center, Front R, Surround R, Surround L, Sur Back** (*)**, Sur Back L, Sur Back R, Front High L, Front High R, Subwoofer:** You can select which speakers will output the test tone.

     * [Sur Back] appears when only one surround back speaker is connected.
4. Adjust the speaker level.

Hint

- You can set a test tone by pressing the TEST TONE button on the remote control. In this

case, you can only use the display panel for the operation.

- To adjust the level of all speakers at the same time, press ◿ +/–. You can also use MASTER VOLUME on the receiver.
- The adjusted value is shown on the TV screen during adjustment.

---

[71] Adjusting Settings | Speaker Setup

Setting the crossover frequency of the speakers (Crossover Frequency)

You can set the bass crossover frequency of speakers for which the speaker size has been set to [Small] in the Speaker Setup menu. A measured speaker crossover frequency is set for each speaker after the Auto Calibration is performed.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Crossover Frequency].
3. Select the speaker for which you want to adjust the crossover frequency on the screen.
4. Set the crossover frequency of the selected speaker.

Note

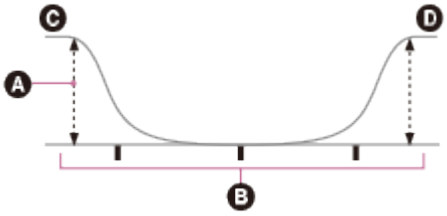
- The surround back speakers will be set to the same setting as that of the surround speakers.

---

[72] Adjusting Settings | Speaker Setup

Adjusting the equalizer (Equalizer)

You can use the following parameters to adjust the tonal quality (bass/treble level) of the front, center, surround/surround back and front high speakers.



Ⓐ Level (dB)
Ⓑ Frequency (Hz)
Ⓒ Bass
Ⓓ Treble

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Equalizer].
3. Select [Front Speaker], [Center Speaker], [Surround] or [Front High].
4. Select [Bass] or [Treble].
5. Adjust the gain.

Note

- This function does not work in the following cases:
  - [2ch Analog Direct] is selected.
  - [Pure Direct] is set to [On].
- Frequencies for [Bass] and [Treble] are fixed.
- Depending on the audio format, the receiver may play signals at a lower sampling frequency than the original sampling frequency of the input signals.

Hint

- You can also select [Equalizer] in [Sound Effects] from the home menu.

Lifting up the sound of the center speaker (Center Speaker Lift Up)

By using the front high speakers, you can lift up the sounds of the center speaker to an appropriate height on the screen, allowing you to enjoy natural sound without discomfort.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Center Speaker Lift Up].
3. Select the setting you want.
   - **1 - 10**
   - **Off**

Hint

- This function does not work in the following cases:
  - There is no center speaker.
  - There are no front high speakers.
  - The [2ch Stereo], [2ch Analog Direct], and [Multi Stereo] sound fields are being used.

---

[74] Adjusting Settings | Speaker Setup

Setting the height from the floor to the ceiling speakers (Ceiling Speaker Height)

Set the height from the floor to the ceiling speakers. You can enjoy the [In-Ceiling Speaker Mode] function more by configuring this setting and performing Auto Calibration.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Ceiling Speaker Height].
3. Adjust the height.

Note

- This function does not work when a speaker pattern that includes front high speakers is selected.

---

[75] Adjusting Settings | Speaker Setup

Selecting the unit of measurement (Distance Unit)

You can select the unit of measurement for setting distances.

1. Select [Setup] - [Speaker Setup] from the home menu.
2. Select [Distance Unit].
3. Select the setting you want.
   - **meter:** The distance is displayed in meters.

- **feet:** The distance is displayed in feet.

---

[76] Adjusting Settings | Network Setup

Setting up a network (Internet Setup)

You can set up a wired LAN connection by the following procedure.

1. Select [Setup] - [Network Setup] from the home menu.
2. Select [Internet Setup].
3. Select [Auto].
4. Select [OK].
   The receiver starts connecting to the network. For details, refer to the messages that appear on the TV screen.

If using a fixed IP address

Select [Manual] in step 3. The IP address input display appears on the TV screen.
Enter the value for [IP Address] using the on-screen keyboard. Press ↑ / ↓ / ← / → and ⊹ to select the characters one by one, then select [Enter] to confirm the values.
Enter the values for [Subnet Mask] and [Default Gateway], then select [Next].

Hint

- See [Information] when checking the network settings.

---

[77] Adjusting Settings | Network Setup

Checking the network information (Information)

---

1. Select [Setup] - [Network Setup] from the home menu.
2. Select [Information].
   You can check the settings (*) for [Connection Status], [IP Address Setting], [IP Address], [Subnet Mask], [Default Gateway], and [MAC Address].

   * The setting items during setup differ depending on the network environment and connection type.

[78] Adjusting Settings | Network Setup

Enabling the network function even when this receiver is in standby mode (Network Standby)

1. Select [Setup] - [Network Setup] from the home menu.
2. Select [Network Standby].
3. Set to [On] or [Off].
   - **On :** The network function works even when the receiver is in standby mode, and the receiver resumes operation when controlled over the network.
   - **Off :** The network function turns off when the receiver is in standby mode. The receiver takes more time to resumes operation when powered on again.

Note

- When the receiver is in standby mode, the I/⏻ (on/standby) indicator on the front panel lights up in amber if [Network Standby] is set to [On].
- The top of the cabinet may become hot. This is because part of the circuit(s) inside the receiver is(are) still turned on, and is not a malfunction.

[79] Adjusting Settings | Network Setup

Enjoying Hi-Fi System sound (Music Connect)

Configure settings to enable the receiver to link with a Hi-Fi System device.

1. Select [Setup] - [Network Setup] from the home menu.
2. Select [Music Connect].
3. Select the setting you want.
   - **Connected Device:** Select the connected device to enable the function. Select [Remove Connected Device] to disable the function.
   - **Input for Music Connect:** Select the input to link with.

- **Preset Volume:** Select the default volume for Music Connect input.
- **Output Zone:** Select the output zone of the Hi-Fi System device.

Note

- For details on how to configure settings for this function, consult your nearest Sony dealer.

Playing audio signals with high-quality sound (Digital Legato Linear (D.L.L.))

The D.L.L. function is Sony proprietary technology that allows low-quality digital and analog audio signals to be played with high-quality sound.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Digital Legato Linear].
3. Select the setting you want.
   - **Auto 1:** This function is available for lossy compression audio formats and analog audio signals.
   - **Auto 2:** This function is available for Linear PCM signals, as well as lossy compression audio formats and analog audio signals.
   - **Off**

Note

- This function works when [2ch Stereo], [A.F.D.] or [Multi Stereo] is selected. However, this function does not work in the following cases:
  - The [In-Ceiling Speaker Mode] function is being used.
  - [FM TUNER] or [AM TUNER] is selected as the input.
  - Linear PCM signals with a sampling frequency other than 44.1 kHz are being received.
  - Dolby Digital Plus, Dolby Digital EX, Dolby TrueHD, DTS 96/24, DTS-ES Matrix 6.1, DTS-HD Master Audio, or DTS-HD High Resolution Audio signals are being received.
  - When zone 2 is on (depending on the zone 2 or HDMI settings).

Enjoying clear and dynamic sound at a low volume (Sound Optimizer)

You can enjoy clear and dynamic sound at low volume levels using the Sound Optimizer. After the Auto Calibration is performed, the sound level is optimized to suit your environment.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Sound Optimizer].
3. Select the setting you want.
   - **Normal:** Adjusts for the reference level of a movie.
   - **Low:** Adjusts for a CD or other software whose average sound pressure level is processed highly.
   - **Off**

Note

- This function does not work in the following cases:
  - [2ch Analog Direct] is selected.
  - [Pure Direct] is set to [On].
- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals, depending on the audio format.

Hint

- You can also select [Sound Optimizer] in [Sound Effects] from the home menu.

Selecting a sound field (Sound Field)

You can select from a variety of sound field modes according to speaker connections or input sources.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Sound Field].
3. Select the sound field you want.

For details on each sound field, see the following topics.

- 2-channel sound mode
- Auto Format Direct (A.F.D.)
- Movie mode
- Multi Stereo

Note

- The sound fields for movie may not work, depending on the input or the speaker pattern you select, or with audio formats.
- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals, depending on the audio format.
- [Pro Logic IIx] may not appear, depending on the speaker pattern you select.
- Some speakers or the subwoofer may not output sound, depending on the sound field setting.
- If there is any noise present, the noise may be different, depending on the sound field you select.

Hint

- You can also select [Sound Field] in [Sound Effects] from the home menu.
- You can also use 2CH/A.DIRECT, A.F.D., MOVIE or MULTI ST. on the remote control or the receiver to select a sound field.

Selecting the HD-D.C.S. effect type (HD-D.C.S. Type)

Select the HD-D.C.S. effect type you want. For details on effect types, see “Movie mode.”

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [HD-D.C.S. Type].
3. Select the setting you want.
   - **Dynamic**
   - **Theater**
   - **Studio**

Note

- This function works only when the sound field is set to [HD-D.C.S.].

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[84] Adjusting Settings | Audio Setup

Enjoying more natural sound with speakers installed in the ceiling (In-Ceiling Speaker Mode)

Set whether or not to use in-ceiling speaker mode with the current input.
In a setup where the front and center speakers are installed in the ceiling, lowering the audio output position to the screen height allows you to enjoy a more natural experience.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [In-Ceiling Speaker Mode].
3. Select [On].

Note

- This function does not work in the following cases:
  - [2ch Analog Direct] is selected.
  - A speaker pattern with the front high speakers is selected.
  - [Pro Logic II], [Pro Logic IIx] or [Neo:6] is selected.
  - [Pure Direct] is set to [On].
- This function may not work depending on the audio format.
- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals depending on the audio format.

Hint

- You can also switch this function on/off for each input on the Input Setup screen.
- You can also select [In-Ceiling Speaker Mode] in [Sound Effects] from the home menu.
- You can also switch the function on/off by pressing IN-CEILING SP on the remote control or the receiver.
- To obtain optimal effects in the listening environment, configure the [Ceiling Speaker Height] setting and perform Auto Calibration.

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[85] Adjusting Settings | Audio Setup

Enjoying high-fidelity sound (Pure Direct)

You can enjoy higher-fidelity sound from all inputs using the Pure Direct function. When the Pure Direct function is on, the display panel lights off to suppress noise that affects sound quality.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Pure Direct].
3. Select [On].

Canceling Pure Direct

The Pure Direct function will be canceled when you perform the following:

- Select [Off] in step 3.
- Press PURE DIRECT.
- Change the sound field.
- Change the scene setting on the TV (Scene Select).
- Change the setting of [Equalizer], [Sound Optimizer], [Dynamic Range Compressor] or [In-Ceiling Speaker Mode].

Note

- [Equalizer], [Sound Optimizer], [Dynamic Range Compressor] and [In-Ceiling Speaker Mode] do not work when the Pure Direct function is selected.

Hint

- You can also use PURE DIRECT to turn the Pure Direct function on or off.
- You can also select [Pure Direct] in [Sound Effects] from the home menu.

Setting the low-pass filter for the subwoofer output (Subwoofer Low Pass Filter)

You can turn the low-pass filter for the subwoofer output on or off. You can set the function for each input to which an audio input jack is assigned independently. Turn the function on if you connect a subwoofer without the crossover frequency function.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Subwoofer Low Pass Filter].
3. Select the setting you want.

- **On:** Always activates the low-pass filter with a cutoff frequency of 120 Hz.
- **Off:** Does not activate the low-pass filter.

Note

- This function does not work when [2ch Analog Direct] is being used.

---

[87] Adjusting Settings | Audio Setup

Synchronizing audio with video output (A/V Sync)

You can delay the output of audio to minimize the time gap between audio output and a visual display.
This function is useful when using a large LCD or plasma monitor or a projector. You can set the function for each input independently.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [A/V Sync].
3. Select the setting you want.
   - **HDMI Auto:** The time gap between the audio output and visual display of a monitor connected via an HDMI connection will be adjusted automatically. This function is available only when the monitor supports the A/V Sync function.
   - **0 ms – 300 ms:** You can adjust the delay from 0 ms to 300 ms in 10 ms intervals.

Note

- The receiver may play signals at a lower sampling frequency than the actual sampling frequency of the input signals, depending on the audio format.

---

[88] Adjusting Settings | Audio Setup

Selecting the language of digital broadcasts (Dual Mono)

You can select the language you want when listening to a digital broadcast with dual audio.
This function only works for Dolby Digital sources.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Dual Mono].
3. Select the setting you want.
   - **Main:** Sound in the main language will be output.
   - **Sub:** Sound in the sub language will be output.
   - **Main/Sub:** Sound in the main language will be output through the front left speaker and sound in the sub language will be output through the front right speaker simultaneously.

---

[89] Adjusting Settings | Audio Setup

Compressing the dynamic range (Dynamic Range Compressor)

You can compress the dynamic range of the soundtrack. This may be useful when you want to watch movies at a low volume late at night, etc.
This function only works for Dolby Digital and Dolby TrueHD sources.

1. Select [Setup] - [Audio Setup] from the home menu.
2. Select [Dynamic Range Compressor].
3. Select the setting you want.
   - **Auto:** The dynamic range is compressed automatically when there is a flag in the sound source that recommends using the Dynamic Range Compressor function.
   - **On:** The dynamic range is compressed as intended by the recording engineer.
   - **Off**

Note

- This function does not work when [Pure Direct] is set to [On].

---

[90] Adjusting Settings | HDMI Setup

Up-converting video signals to 4K (4K Scaling)

You can up-convert video signals to 4K and output them through the HDMI OUT A jack of the receiver.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [4K Scaling].
3. Select the setting you want.
   - **Auto:** Enables video scaling control of 4K HDMI output automatically if you connect a 4K-compatible TV.
   - **Off:** Only upscales video signals from VIDEO IN, COMPONENT VIDEO IN jacks up to 1080p.

Note

- This function works only when video signals from the VIDEO IN, COMPONENT VIDEO IN, or HDMI IN jacks are being received. HDMI video input signals must be 1080p@23.98/24 Hz.
- The HDMI OUT B jack does not support 4K Scaling. Video signals are output in the same resolution as the input resolution.

Controlling HDMI devices (Control for HDMI)

You can turn the Control for HDMI function on or off. For details, see “Preparing for “BRAVIA” Sync.”

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Control for HDMI].
3. Select the setting you want.
   - **On**
   - **Off**

Note

- When you set [Control for HDMI] to [On], [Audio Out] may be changed automatically.
- When the receiver is in standby mode, the I/⏻ (on/standby) indicator on the front panel

lights up in amber if [Control for HDMI] is set to [On].
- This function is enabled only when [HDMI Out B Mode] is set to [Main].

[92] Adjusting Settings | HDMI Setup

Passing HDMI signals through (Pass Through)

You can output HDMI signals to the TV even when the receiver is in standby mode.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Pass Through].
3. Select the setting you want.
   - **Auto:** The receiver outputs HDMI signals to the TV from the HDMI OUT jack when the TV is turned on while the receiver is in the standby mode.
     Sony recommends this setting if you are using a “BRAVIA” Sync-compatible Sony TV. This setting saves power in the standby mode compared to the [On] setting.
   - **On:** The receiver continuously outputs HDMI signals from the HDMI OUT jack when in standby mode.
   - **Off:** The receiver does not output HDMI signals when in standby mode. This setting saves power in the standby mode compared to the [On] setting.

Note

- When the receiver is in standby mode, the I/⏻ (on/standby) indicator on the front panel lights up in amber if [Pass Through] is set to [On] or [Auto].
- The top of the cabinet may become hot. This is because part of the circuit(s) inside the receiver is(are) still turned on, and is not a malfunction.
- When [Auto] is selected, it may take a little more time for the image and sound to be output to the TV than when [On] is selected.
- This function is only supported by the HDMI OUT A jack.

[93] Adjusting Settings | HDMI Setup

Setting the HDMI audio signal output of connected devices (Audio Out)

You can set the HDMI audio signal output of playback devices connected to the receiver via an HDMI connection.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Audio Out].
3. Select the setting you want.
   - **AMP:** HDMI audio signals from playback devices are only output to the speakers connected to the receiver. Multi-channel sound can be played back as it is.
   - **TV+AMP:** The sound is output from the speaker of the TV and the speakers connected to the receiver.

Note

- Audio signals are not output from the speaker of the TV when [Audio Out] is set to [AMP].
- When [TV+AMP] is selected, the sound quality of the playback device depends on the sound quality of the TV, such as the number of channels and the sampling frequency, etc. If the TV has stereo speakers, the sound output from the receiver is in the same stereo as the TV, even when playing back multi-channel source.
- When you connect the receiver to a video device (projector, etc.), sound may not be output from the receiver. In this case, select [AMP].

Setting the zone 2 HDMI audio output of connected devices (Zone2 Audio Out)

You can set the zone 2 HDMI audio signal output for playback devices connected to the receiver via an HDMI connection.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Zone2 Audio Out].
3. Select the setting you want.
   - **AMP:**
     Recommended setting when a TV is connected directly to HDMI OUT B jack.
     Sound is output from the speakers connected to the receiver.
     Sound is not output from the TV speakers.
   - **Zone2 TV + AMP:**

Recommended setting when a TV is connected directly to HDMI OUT B jack.
Sound is output from the TV speakers and the speakers connected to the receiver.

- **Zone2 AMP:**
  Recommended setting when another amplifier is connected to HDMI OUT B jack.
  Sound is output from the another receiver connected to HDMI OUT B jack.
  Sound is not output from ZONE 2 SPEAKER OUT terminals and ZONE 2 AUDIO OUT jacks.

Note

- You can only configure this setting only when [HDMI Out B Mode] is set to [Zone2].
- When a video device (projector, etc.) is connected to the ZONE 2 HDMI OUT jack, sound may not be output from the receiver. In this case, set [Zone2 Audio Out] to [AMP].
- When a TV which does not support audio content protection is connected to the HDMI OUT B jack, specific audio may not be output from the receiver. In this case, set [Zone2 Audio Out] to [AMP].
- When [Zone2 Audio Out] is set to [Zone2 TV + AMP] or [AMP], audio signals will be downmixed. The following restrictions apply to downmixing.
  - Audio signals are not output to zone 2 when receiving a DSD signal.
  - If you change the sound field or speaker settings in the main zone while the input for zone 2 is set to SOURCE or the same input is selected in the main zone and zone 2, the sound may also be momentarily interrupted in zone 2.
  - The D.L.L. function does not work in the main zone.
  - The volume level of sound from ZONE 2 SPEAKER OUT terminals and HDMI OUT B jack may be different from sound that is not downmixed.
- No sound will be output to zone 2 if you play a DTS-CD with different HDMI inputs selected in the main zone and zone 2.
- You cannot remedy the time gap between video output on the TV connected to HDMI OUT B jack and audio output from the speaker connected to ZONE 2 SPEAKER OUT terminals using the A/V Sync function.

Setting the level of the subwoofer (Subwoofer Level)

You can set the level of the subwoofer to 0 dB or +10 dB when multi-channel PCM signals are input via an HDMI connection. The level for each input to which an HDMI input jack is assigned can be set independently.

1. Select [Setup] - [HDMI Setup] from the home menu.

2. Select [Subwoofer Level].
3. Select the setting you want.
   - **Auto:** Automatically sets the level to 0 dB or +10 dB, depending on the audio stream.
   - **+10 dB**
   - **0 dB**

---

[96] Adjusting Settings | HDMI Setup

Selecting the method to use the HDMI OUT B jack (HDMI Out B Mode)

The HDMI OUT B jack can be used for zone 2.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [HDMI Out B Mode].
3. Select the setting you want.
   - **Main :** Uses the jack for HDMI OUT B. Recommended when you enjoy TV or projector content in only one room (main zone).
   - **Zone2 :** Uses the jack for zone 2. Recommended when you enjoy video and sound from a device connected to the receiver in a zone other than the main zone (zone 2).

Note

- When [Zone2] is selected, the Control for HDMI function and Fast View function do not work.
- When [Main] is selected, HDMI IN audio signals cannot be output to zone 2 speakers and the PRE OUT jacks unless the input for zone 2 is SOURCE or the same input is selected in the main zone and zone 2.

---

[97] Adjusting Settings | HDMI Setup

Setting the priority for the main zone (Priority)

Lets you set the priority when you select the same input for both the main zone and zone 2.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Set [Priority].
   - **Main & Zone2:**
     You can enjoy the same input in the main zone and zone 2. However, there may be some interference in the audio and video signals in the main zone and zone 2.
   - **Main Only:**
     You can enjoy good audio and video quality in the main zone. There is no output in zone 2.

Note

- This function is enabled only when [HDMI Out B Mode] is set to [Zone2].

Speeding up the display when switching the HDMI input (Fast View)

You can set the Fast View function for the HDMI inputs.

1. Select [Setup] - [HDMI Setup] from the home menu.
2. Select [Fast View].
3. Select the setting you want.
   - **Auto:** You can select HDMI input faster than normal selection.
   - **Off:** The Fast View function is not available.

Note

- This function is enabled only when [HDMI Out B Mode] is set to [Main].
- If you select [Off], it takes more time for images to appear after switching the input. However, the sound quality is improved because the receiver receives signals only from the selected HDMI input jack.

Presetting the volume in the main zone (Main Preset Volume)

Set the volume to be used when the receiver is turned on.

1. Select [Setup] - [Zone Setup] from the home menu.
2. Select [Main Preset Volume].
3. Adjust the volume.

Turning on/off the power for zone 2/3 (Power)

You can turn on or off the power for zone 2 or zone 3 by the following procedure.

1. Press ZONE2 or ZONE3 on the remote control or on the receiver.

Note

- The receiver in zone 2 or zone 3 remains turned on even when this receiver is in standby mode (To turn off the amplifier power for zone 2 or zone 3, press ZONE2 or ZONE3 on the remote control or on the receiver.).
- When the receiver is in standby mode, the I/⏻ (on/standby) indicator on the front panel lights up in amber if the receiver in zone 2 or zone 3 is turned on.
- The top of the cabinet may become hot. This is because part of the circuit(s) inside the receiver is(are) still turned on, and is not a malfunction.

Hint

- You can also turn on or off the power for zone 2 or zone 3 by setting [Zone2 Power] or [Zone3 Power] in [Zone Setup] from the home menu.

Selecting the source signals for zone 2/3 (Input)

You can select the source signals for zone 2 or zone 3 using the following procedure.

1. Press ZONE2 or ZONE3 on the remote control or on the receiver.
2. Press the input button of the source signals you want to output.
   The power turns on in zone 2 or zone 3, then the input switches to the selected input.

Hint

- When the power is on in zone 2 or zone 3, you can also select the source signals for zone 2 or zone 3 by setting [Zone2 Input] or [Zone3 Input] in [Zone Setup] from the home menu.

Adjusting the volume for zone 2/3 (Volume)

You can adjust the volume for zone 2 or zone 3 using the following procedure in the following cases:

- When using the connections described in “Connecting the speakers in zone 2.”
- When using the connections described in “Connecting another amplifier in zone 2/3,” and when [Zone2 Line Out] or [Zone3 Line Out] is set to [Variable].

1. Press ZONE2 or ZONE3 on the remote control or on the receiver.
2. Adjust the volume.

Note

- If [Zone2 Line Out] or [Zone3 Line Out] is set to [Fixed], adjust the volume using another amplifier in zone 2 or zone 3.

Hint

- When the power is on in zone 2 or zone 3, you can also adjust the volume for zone 2 or zone 3 by setting [Zone2 Volume] or [Zone3 Volume] in [Zone Setup] from the home menu.
- You can preset the volume in each zone. For details, see “Presetting the volume in zone 2/3 (Zone2/3 Preset Volume).”

Presetting the volume in zone 2/3 (Zone2/3 Preset Volume)

Set the volume in zone 2 or zone 3 when turning on the receiver.

1. Select [Setup] - [Zone Setup] from the home menu.
2. Select [Zone2 Preset Volume] or [Zone3 Preset Volume].
3. Adjust the volume.

Setting the volume control for zone 2/3 (Line Out)

You can set variable or fixed volume control for the ZONE 2 AUDIO OUT/ZONE 3 AUDIO OUT jacks.

1. Select [Setup] - [Zone Setup] from the home menu.
2. Select [Zone2 Line Out] or [Zone3 Line Out].
3. Select the setting you want.
   - **Variable:**
     Select when you cannot adjust the volume level on the amplifier in zone 2 or zone 3. The volume level of the receiver output in zone 2 or zone 3 will become adjustable.
   - **Fixed:**
     Select to adjust the volume on the amplifier in zone 2 or zone 3. The volume level of the receiver output in zone 2 or zone 3 on the receiver will be fixed.

Note

- When [Variable] is set, the volume is turned down by default. Turn up the volume while listening to the sound after completing setup.

Selecting the language (Language)

You can select the language of messages on the screen.

1. Select [Setup] - [System Setup] from the home menu.
2. Select [Language].
3. Select the language you want.

[106] Adjusting Settings | System Setup

Tuning on/off the display for the volume level or sound field (Auto Display)

This function allows you to turn the information display which appears on the TV screen on or off when the volume level or sound field, etc. of the receiver is changed.

1. Select [Setup] - [System Setup] from the home menu.
2. Select [Auto Display].
3. Select the setting you want.
   - **On**
   - **Off**

[107] Adjusting Settings | System Setup

Setting standby mode (Auto Standby)

You can set the receiver to switch to standby mode automatically when you do not operate the receiver or when no signals are input to the receiver.

1. Select [Setup] - [System Setup] from the home menu.

2. Select [Auto Standby].
3. Select the setting you want.
   - On: The receiver switches to standby mode after approximately 20 minutes.
   - Off

Note

- This function does not work in the following cases:
  - [FM TUNER] or [AM TUNER] is selected as the input.
  - The software of the receiver is being updated.
- If you use the Auto Standby mode and the sleep timer at the same time, the sleep timer has priority.

---

[108] Adjusting Settings | System Setup

Changing the volume display (Volume Display)

Set the volume display on the display panel and GUI.

1. Select [Setup] - [System Setup] from the home menu.
2. Select [Volume Display].
3. Select the setting you want.
   - **Relative :** Indicates the volume in dB.
   - **Absolute :** Indicates the number of steps.

---

[109] Adjusting Settings | System Setup

Switching the brightness of the display panel (Dimmer)

Switch the brightness of the display panel between 3 levels.

1. Select [Setup] - [System Setup] from the home menu.
2. Select [Dimmer].

3. Select the setting you want.
    - **100%**
    - **60%**
    - **0%**

---

[110] Adjusting Settings | System Setup

Using the sleep timer (Sleep)

You can set the receiver to turn off automatically at a specified time.

1. Select [Setup] - [System Setup] from the home menu.
2. Select [Sleep].
3. Set specified time.
    - 2:00:00
    - 1:30:00
    - 1:00:00
    - 0:30:00
    - Off

    [SLEEP] lights up on the display panel of the receiver when sleep timer is being used.

Hint

- You can check the remaining time before the receiver turns off on the System Setup screen. Also, the remaining time appears on the bottom right of the TV screen when it becomes 1 minute or less.
- The sleep timer will be canceled if you perform the following:
    - Update the software of the receiver.
    - Turn the receiver on or off.

---

[111] Adjusting Settings | System Setup

Checking the software version (Software Version)

You can check the current software version of the receiver.

1. Select [Setup] - [System Setup] from the home menu.
2. Check [Software Version].

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[112] Adjusting Settings | System Setup

Updating the software using the USB flash drive (USB Update)

Update the receiver software using the USB flash drive.

1. Copy the file for updating to the top level directory (just under the root directory) of the USB flash drive.
2. Connect the USB flash drive to the SETTING (USB) port of the receiver.
3. Select [Setup] - [System Setup] from the home menu.
4. Select [USB Update] to enter.
   [UPDATING...XXX%] appears on the display panel while updating. When the update completes, receiver will restart automatically.

---

[113] Adjusting Settings | System Setup

Setting the tuner (Tuner Setup)

Configure the FM mode and Name Input settings. This function only works while the [FM TUNER] or [AM TUNER] input is selected.

For details, see “Selecting the FM reception method (FM Mode)” or “Naming preset stations (Name Input).”

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[114] Adjusting Settings | Install Setup

Turning on control mode for maintenance (External Control)

Set whether or not to control the receiver from external devices.

1. Select [Setup] - [Install Setup] from the home menu.
2. Select [External Control].
3. Select the setting you want.
   - **On**
   - **Off**

Switching on/off the 12V trigger output (Trigger 1/2/3) (STR-ZA3000ES)

Lets you select various options for using the 12V Trigger output function.

1. Select [Setup] - [Install Setup] from the home menu.
2. Select [Trigger 1]/[Trigger 2]/[Trigger 3].
3. Select the item you want to set.
   - **Main Zone**
     Turns on/off the 12V trigger output according to the power status in the main zone.
   - **Zone 2**
     Turns on/off the 12V trigger output according to the power status in zone 2.
   - **Zone 3**
     Turns on/off the 12V trigger output according to the power status in zone 3.
   - **BD/DVD**
     Turns on the 12V trigger output when the BD/DVD input is selected.
   - **SAT/CATV**
     Turns on the 12V trigger output when the SAT/CATV input is selected.
   - **GAME**
     Turns on the 12V trigger output when the GAME input is selected.

STB
Turns on the 12V trigger output when the STB input is selected.

- **VIDEO**
  Turns on the 12V trigger output when the VIDEO input is selected.
- **AUX**
  Turns on the 12V trigger output when the AUX input is selected.
- **TV**
  Turns on the 12V trigger output when the TV input is selected.
- **SA-CD/CD**
  Turns on the 12V trigger output when the SA-CD/CD input is selected.
- **FM TUNER**
  Turns on the 12V trigger output when the FM TUNER input is selected.
- **AM TUNER**
  Turns on the 12V trigger output when the AM TUNER input is selected.
- **HDMI OUT A**
  Turns on 12V trigger output when HDMI OUT is set to HDMI A or HDMI A+B.
- **HDMI OUT B**
  Turns on 12V trigger output when HDMI OUT is set to HDMI B or HDMI A+B.
- **HDMI OUT OFF**
  Turns on 12V trigger output when HDMI OUT is set to HDMI OFF.

Note

- When all of [Main Zone], [Zone 2] and [Zone 3] are deselected, all other items will be unavailable.
- If you set 12V trigger output as unavailable for all inputs, switching input will have no affect on 12V trigger outputs.
- If you set 12V trigger output as unavailable for all of HDMI OUT A, HDMI OUT B and HDMI OUT OFF, the HDMI OUT settings will have no affect on 12V trigger outputs.
- Settings for HDMI OUT A, HDMI OUT B and HDMI OUT OFF are available only when they work in sync with the power in the main zone.

Switching on/off the 12V trigger output (Trigger) (STR-ZA2000ES/STR-ZA1000ES)

Lets you select various options for using the 12V Trigger output function.

1. Select [Setup] - [Install Setup] from the home menu.
2. Select [Trigger].
3. Select the item you want to set.
   - **Main Zone**
     Turns on/off the 12V trigger output according to the power status in the main zone.
   - **Zone 2**
     Turns on/off the 12V trigger output according to the power status in zone 2.
   - **Zone 3**
     Turns on/off the 12V trigger output according to the power status in zone 3.
   - **BD/DVD**
     Turns on the 12V trigger output when the BD/DVD input is selected.
   - **SAT/CATV**
     Turns on the 12V trigger output when the SAT/CATV input is selected.
   - **GAME**
     Turns on the 12V trigger output when the GAME input is selected.
   - **STB**
     Turns on the 12V trigger output when the STB input is selected.
   - **VIDEO**
     Turns on the 12V trigger output when the VIDEO input is selected.
   - **AUX**
     Turns on the 12V trigger output when the AUX input is selected.
   - **TV**
     Turns on the 12V trigger output when the TV input is selected.
   - **SA-CD/CD**
     Turns on the 12V trigger output when the SA-CD/CD input is selected.
   - **FM TUNER**
     Turns on the 12V trigger output when the FM TUNER input is selected.
   - **AM TUNER**
     Turns on the 12V trigger output when the AM TUNER input is selected.
   - **HDMI OUT A**
     Turns on 12V trigger output when HDMI OUT is set to HDMI A or HDMI A+B.
   - **HDMI OUT B**
     Turns on 12V trigger output when HDMI OUT is set to HDMI B or HDMI A+B.
   - **HDMI OUT OFF**
     Turns on 12V trigger output when HDMI OUT is set to HDMI OFF.

Note

- When all of [Main Zone], [Zone 2] and [Zone 3] are deselected, all other items will be

unavailable.

- If you set 12V trigger output as unavailable for all inputs, switching input will have no affect on 12V trigger outputs.
- If you set 12V trigger output as unavailable for all of HDMI OUT A, HDMI OUT B and HDMI OUT OFF, the HDMI OUT settings will have no affect on 12V trigger outputs.
- Settings for HDMI OUT A, HDMI OUT B and HDMI OUT OFF are available only when they work in sync with the power in the main zone.

---

[117] Adjusting Settings | Install Setup

Displaying a test screen (Test Picture)

Display a test screen for HDMI OUT A and HDMI OUT B jacks.

1. Select [Setup] - [Install Setup] from the home menu.
2. Select [Test Picture].
3. Select [On].

Hint

- You can also display a test screen by pressing TEST PICTURE on the remote control.
- A test picture is output from HDMI OUT A at a resolution that corresponds to the specifications of the connected TV. A test picture is output in 480p from HDMI OUT B.
- HDMI audio signals are not output while the test screen is displayed.

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[118] Adjusting Settings | Install Setup

Locking settings of the receiver (Settings Lock)

You can lock the receiver settings to prevent setting values from being accidentally erased.

1. Select [Setup] - [Install Setup] from the home menu.
2. Select [Settings Lock].
3. Select [On].

Hint

- To set this function to [Off], press PING, AMP MENU and ENTER on the receiver at the same time.

---

[119] Adjusting Settings | Easy Setup

Setting up the receiver using the Easy Setup

When you turn on the receiver for the first time or after the receiver is initialized, the Easy Setup screen appears on the TV screen. You can set up the following settings for the receiver by following the instructions on the Easy Setup screen.

- Auto Calibration
  Perform automatic calibration in accordance with your speaker system configuration and arrangement.
- Internet Setup
  Configure settings to connect the receiver to the network.

Note

- Switch the input of the TV to the input to which the receiver is connected to use this function.

If the Easy Setup screen does not appear or you want to display the Easy Setup screen manually, you can display it by selecting [Setup] - [Easy Setup] from the home menu.

---

[120] Adjusting Settings | Using the menu on the display panel

Operating the receiver with the menu on the display panel

You can operate this receiver using the display panel even if the TV is not connected to the receiver or the TV is turned off.

1. Press AMP MENU.
   The menu is displayed on the display panel of the receiver.
2. Press ↑ / ↓ repeatedly to select the menu you want, then press ⊕.
3. Press ↑ / ↓ repeatedly to select the parameter you want to adjust, then press ⊕.

4. Press ↑ / ↓ repeatedly to select the setting you want, then press ⊕.

To return to the previous display

Press ← or RETURN.

To exit the menu

Press AMP MENU.

Note

- Some parameters and settings may appear dimmed on the display panel. This means that they are either unavailable or fixed and unchangeable.

Viewing information on the display panel

The display panel provides various information on the status of the receiver, such as the sound field.

1. Select the input for which you want to check information.
2. Press DISPLAY repeatedly.
   Each time you press DISPLAY, the display will change cyclically as follows:
   Input name you entered (*1) or default input name, Sound field currently applied (*2) → Input name you entered (*1) or default input name, Stream information (*3) → Input name you entered, default input name (*1)

   ### When listening to FM and AM radio

   Band, Preset number, Preset station name (*1), Sound field currently applied (*2) → Band, Preset number, Frequency, Sound field currently applied (*2)

*1 Index name appears only when you have assigned one to the input or preset station. Index name does not appear if only blank spaces have been entered or it is same as the input name.

*2 [PURE.DIRECT] appears on the display panel when the Pure Direct function is activated.

*3 Stream Information is not displayed when analog signals are input. This may happen even when digital signals are input.

Note

- Characters or marks in some languages may not be displayed.

Reverting to the factory default settings

You can clear all memorized settings and restore the receiver to the factory default settings by the following procedure. This procedure can also be used to initialize the receiver before you use it for the first time.
Be sure to use the buttons on the receiver to perform this operation.

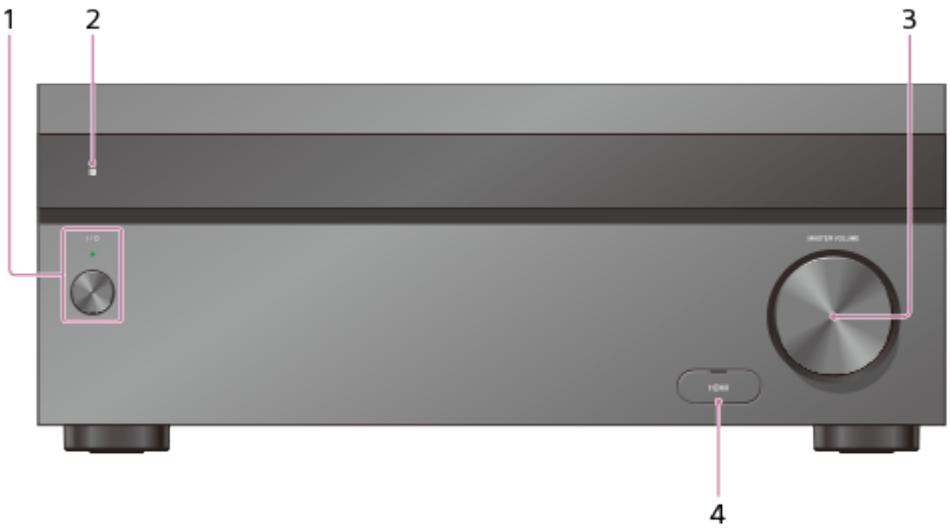
1. Turn off the receiver.
2. Hold down I/⏻ (on/standby) on the receiver for 5 seconds.
   [MEMORY CLEARING] appears on the display panel for a while, then changes to [MEMORY CLEARED!] .

Note

- Do not turn the receiver off until [MEMORY CLEARED!] appears on the display panel.

Front panel

With the front cover

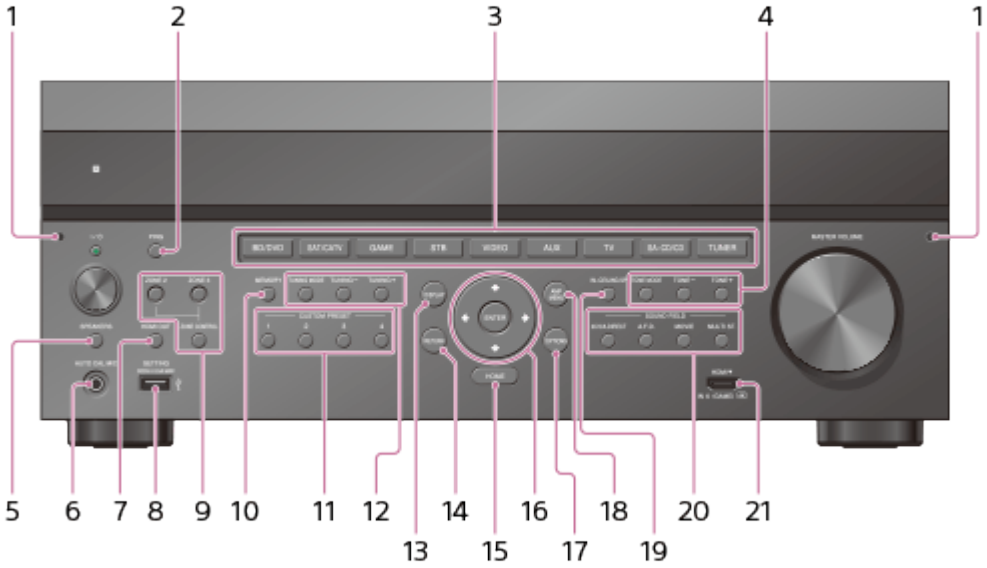


1. **I/⏻ (on/standby)**
   Turns the receiver on or sets it to standby mode. The indicator lights up according to the status of the receiver. Also, the color of the indicator changes depending on the

status of the receiver.

2. **Remote sensor**
   Receives signals from remote control.
3. **MASTER VOLUME**
   Turns to adjust the volume level.
4. **HDMI jack cover (for STR-ZA3000ES/STR-ZA2000ES only)**
   Open the cover when you use HDMI IN 6 (GAME) jack.

Without the front cover



1. **Fixing point of the front cover**
   Attaches the front cover using this fixing point.
2. **PING**
   Displays the IP address and MAC address on the display panel.
3. **Input buttons**
   Select the device you want to use.
4. **TONE MODE**, **TONE+/–**
   Press to adjust the bass/treble level of the speaker.
5. **SPEAKERS**
   Switch to OFF, A, B, A+B of the front speakers.
6. **AUTO CAL MIC jack**
   Connect the supplied optimizer microphone for Auto Calibration to this jack.
7. **HDMI OUT**
   Switches the output for two monitors connected to the HDMI OUT A and HDMI OUT B jacks.
8. **SETTING** **(USB) port**
   Used for maintenance and service.
9. **ZONE CONTROL (ZONE2, ZONE3)**
   Selects the place where you will control.
10. **MEMORY**
    Press to store a station during tuner operation.

11. **CUSTOM PRESET (1, 2, 3, 4)**
    Saves and recalls various settings for the receiver.
12. **TUNING MODE, TUNING +/–**
    Press to operate a tuner (FM/AM).
13. **DISPLAY**
    Displays information on the display panel.
14. **RETURN**
    Returns to the previous menu.
15. **HOME**
    Displays the home menu on the TV screen.
16. **ENTER, ←/↑/↓/→**
    Press ←/↑/↓/→ to select the menu items. Then press ENTER to enter the selection.
17. **OPTIONS**
    Displays and selects items from the options menus.
18. **AMP MENU**
    Displays the menu on the display panel of the receiver to operate the receiver.
19. **IN-CEILING SP**
    Activates the In-Ceiling Speaker Mode.
20. **SOUND FIELD (2CH/A.DIRECT, A.F.D., MOVIE, MULTI ST.)**
    Selects the sound field you want.
21. **HDMI IN 6 (GAME) jack (for STR-ZA3000ES/STR-ZA2000ES only)**
    Connect to a video game console. The video and sound from your video game console is input.

Indicator light above I/⏻ (on/standby) button

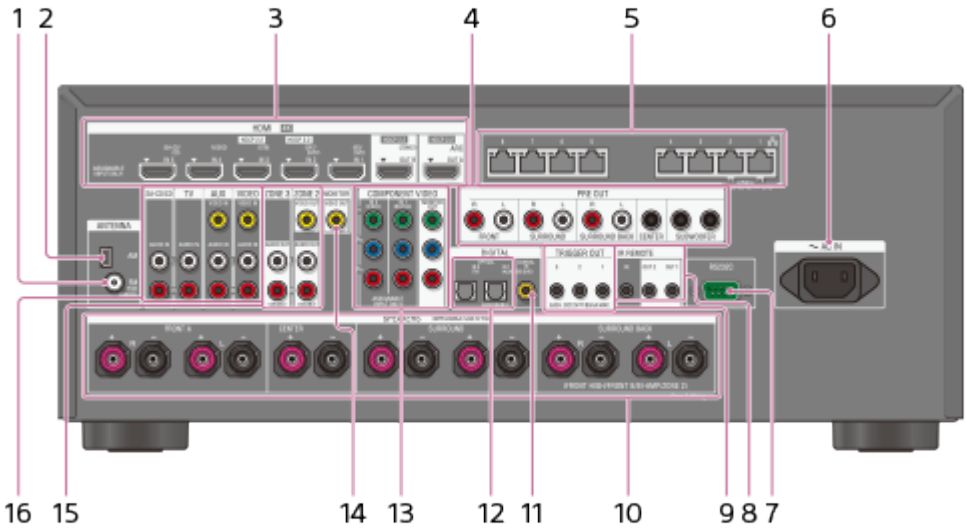
- Green: The receiver is turned on.
- Amber: The receiver is in standby mode, and:
  - [Control for HDMI] or [Network Standby] is set to [On].
  - [Pass Through] is set to [On] or [Auto].
  - The power for zone 2 or zone 3 is turned on.

  The indicator turns off when the receiver is in standby mode and [Control for HDMI], [Pass Through] and [Network Standby] are set to [Off], and the power for zone 2 and zone 3 is turned off.
  The top of the cabinet may become hot. This is because part of the circuit(s) inside the receiver is(are) still turned on, and is not a malfunction.

Note

- The indicator flashes slowly when a software update is in progress.

Rear panel (STR-ZA3000ES)



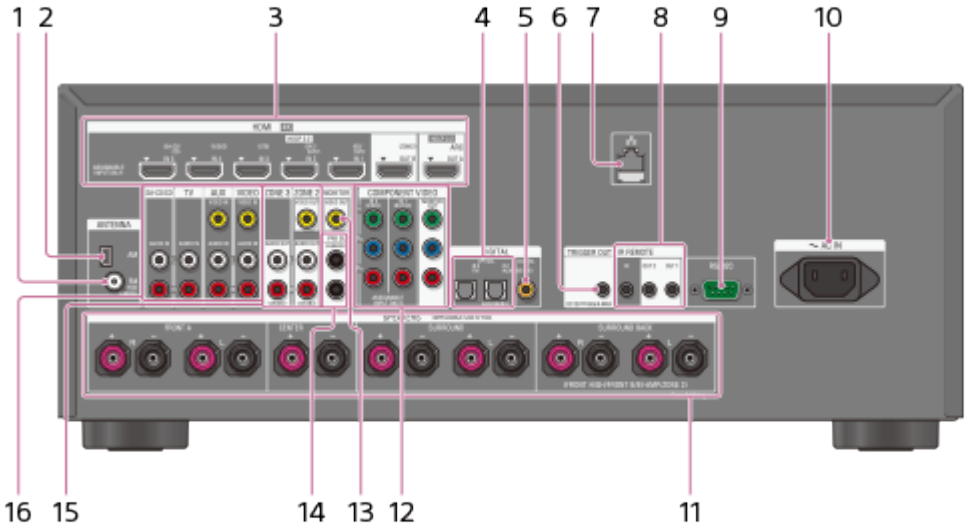
1. **FM ANTENNA terminal**
2. **AM ANTENNA terminal**
3. **HDMI IN/OUT** (*1) **jacks**
4. **PRE OUT jacks**
   Connect to an external power amplifier and a subwoofer.
5. **Giga-bit Ethernet HUB** (*2)
6. **AC IN terminal**
   Connect the supplied AC power cord (mains lead).
7. **RS232C port** (*2)
8. **IR REMOTE IN/OUT jacks**
   - You can control the receiver from a distance by connecting an IR repeater (not supplied) to the IR REMOTE IN jack.
   - You can start or stop playback of devices such as a CD player connected to the receiver by connecting an IR Blaster (not supplied) to the IR REMOTE OUT jack.
9. **TRIGGER OUT jacks**
   Connect to interlock on/off of the power supply of other 12V TRIGGER compliant equipment, or the amplifier/receiver of zone 2 or zone 3.
10. **SPEAKERS terminals**
11. **DIGITAL COAXIAL IN jack**
12. **DIGITAL OPTICAL IN jacks**
13. **COMPONENT VIDEO IN/OUT** (*1) **jacks**
14. **MONITOR VIDEO OUT** (*1) **jack**
15. **ZONE 2/ZONE 3 OUT jacks**
16. **Video/audio input jacks**

*1 You must connect your TV to HDMI OUT or MONITOR VIDEO OUT jack to watch images from the selected input.

*2 This is a control expansion terminal for custom installation.

[125] Parts and Controls | Receiver

Rear panel (STR-ZA2000ES/STR-ZA1000ES)



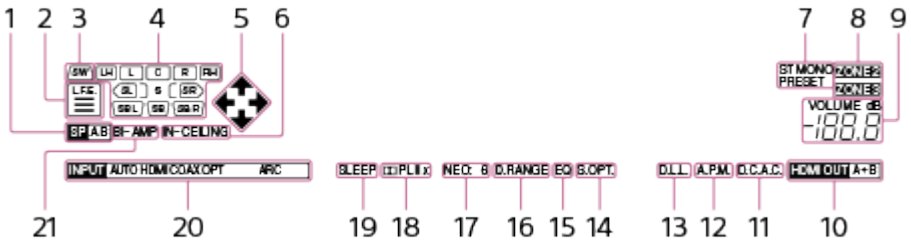
1. **FM ANTENNA terminal**
2. **AM ANTENNA terminal**
3. **HDMI IN/OUT** (*1) **jacks**
4. **DIGITAL OPTICAL IN jacks**
5. **DIGITAL COAXIAL IN jack**
6. **TRIGGER OUT jacks**
   Connect to interlock on/off of the power supply of other 12V TRIGGER compliant equipment, or the amplifier/receiver of zone 2 or zone 3.
7. **LAN port** (*2)
8. **IR REMOTE IN/OUT jacks**
   - You can control the receiver from a distance by connecting an IR repeater (not supplied) to the IR REMOTE IN jack.
   - You can start or stop playback of devices such as a CD player connected to the receiver by connecting an IR Blaster (not supplied) to the IR REMOTE OUT jack.
9. **RS232C port** (*2)
10. **AC IN terminal**
    Connect the supplied AC power cord (mains lead).
11. **SPEAKERS terminals**
12. **COMPONENT VIDEO IN/OUT** (*1) **jacks**
13. **MONITOR VIDEO OUT** (*1) **jack**
14. **PRE OUT SUBWOOFER OUT jacks**

15. **ZONE 2/ZONE 3OUT jacks**
16. **Video/audio input jacks**

*1 You must connect your TV to HDMI OUT or MONITOR VIDEO OUT jack to watch images from the selected input.

*2 This is a control expansion terminal for custom installation.

Indicators on the display panel



1. **Speaker system indicator**
2. **L.F.E.**
   Lights up when input signals being played back contain an L.F.E. (Low Frequency Effects) channel. The L.F.E. channel signal is actually being reproduced, the bars underneath the letters light up to indicate the level. Since the L.F.E. signal is not recorded in all parts of the input signal, the bar indication will fluctuate (and may turn off) during playback.
3. **SW**
   Lights up when subwoofer(s) is (are) connected and the audio signal is output from the PRE OUT SUBWOOFER jack(s).
4. **Playback channel indicator**
   Indicates the speaker that is designated to output sound. Shows how the receiver down-mixes or up-mixes the source sound, based on the speaker settings.
   L
   Front Left
   R
   Front Right
   C
   Center
   LH
   Left High
   RH
   Right High

SL

Surround Left

SR

Surround Right

SBL

Surround Back Left

SBR

Surround Back Right

5. ↑ / ↓ / ← / →

   Indicates currently available operation on the display panel using ↑ / ↓ / ← / → on the remote control.

6. **IN-CEILING**

   Lights up when the In-Ceiling Speaker Mode is activated.

7. **Tuning indicator**

   Lights up when the receiver tunes to a radio station.

   ST

   The receiver tunes to a stereo broadcast.

   MONO

   FM mode is set to the monaural mode.

   PRESET

   The tuning mode is set to the preset mode.

8. **ZONE2, ZONE3**

   The applicable indicator lights up while the power for zone 2 or zone 3 is turned on.

9. **VOLUME**

   Displays the current volume.

10. **HDMI OUT A+B**

11. **D.C.A.C.**

    Lights up when the measurement results of the Auto Calibration function are applied.

12. **A.P.M.**

    Lights up when the A.P.M. (Automatic Phase Matching) function is activated. You can only set the A.P.M. function in the D.C.A.C. (Digital Cinema Auto Calibration) function.

13. **D.L.L.**

    Lights up when the Digital Legato Linear (D.L.L.) function is activated.

14. **S.OPT.**

    Lights up when the Sound Optimizer function is activated.

15. **EQ**

    Lights up when the equalizer is activated.

16. **D.RANGE**

    Lights up when dynamic range compression is activated.

17. **NEO:6 indicator**

    The applicable indicator lights up when DTS Neo:6 decoding is activated.

18. **Dolby Pro Logic indicator**

    The applicable indicator lights up when the receiver performs Dolby Pro Logic

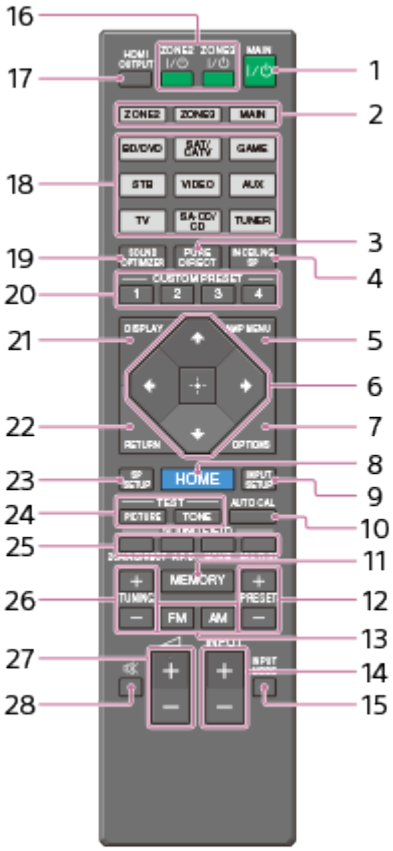
processing. This matrix surround decoding technology can enhance input signals.

- **PLII** : Dolby Pro Logic II
- **PLIIx** : Dolby Pro Logic IIx

19. **SLEEP**
    Lights up when the sleep timer is activated.
20. **Input indicator**
    Lights up to indicate the current input.
    AUTO
    [Input Mode] is set to [Auto].
    HDMI
    The receiver recognizes devices connected via an HDMI IN jack.
    COAX
    Digital signals are input through the COAXIAL jack.
    OPT
    Digital signals are input through the OPTICAL jack.
    ARC
    TV input is selected and Audio Return Channel (ARC) signals are detected.
21. **BI-AMP**
    Lights up when [SB Speaker Assign] in the Speaker Setup menu is set to [Bi-Amp] to use a bi-amplifier connection.

Remote control

Use the supplied remote control to operate this receiver.



1. **MAIN I/⏻ (on/standby)**
   Turns the receiver on or sets it to the standby mode.
   Saving power in standby mode
   Save power by setting the receiver as follows:
   - Set [Control for HDMI], [Pass Through], and [Network Standby] to [Off].
   - Turn off the receiver in zone 2 and zone 3.
2. **ZONE2, ZONE3, MAIN**
   Selects the place where you will control.
3. **PURE DIRECT**
   Press to use the Pure Direct function.
4. **IN-CEILING SP**
   Activates the In-Ceiling Speaker Mode.
5. **AMP MENU**
   Displays the menu on the display panel of the receiver to operate the receiver.
6. **, ↑/↓/←/→**
   Press ↑/↓/←/→ to select the menu items.
   Then press to enter the selection.
7. **OPTIONS**
   Displays the option menus on the TV screen for item selection.
8. **HOME**
   Displays the home menu on the TV screen.
9. **INPUT SETUP**
   Displays the Input Setup menu.
10. **AUTO CAL**

Displays the auto calibration menu on the display panel of the receiver to perform Auto Calibration.

11. **MEMORY**
    Press to enter the Memory mode of the tuner.
12. **PRESET +/–**
    Press to select the preset stations.
13. **FM/AM**
    Press to select the band you want.
14. **INPUT +/–**
    Press to select the input source.
15. **INPUT MODE**
    Press to select the input mode.
16. **ZONE2** I/⏻, **ZONE3** I/⏻
    Turns the receiver in zone 2 or zone 3 on or sets it to the standby mode.
17. **HDMI OUTPUT**
    Switches the output for two monitors connected to the HDMI OUT A and HDMI OUT B jacks.
18. **Input buttons**
    Select the device you want to use.
    When you press any of the input buttons, the receiver turns on.
19. **SOUND OPTIMIZER**
    Press to use the Sound Optimizer to enjoy clear and dynamic sound at low volume levels.
20. **CUSTOM PRESET (1, 2, 3, 4)**
    Saves and recalls various settings for the receiver.
21. **DISPLAY**
    Displays information on the TV screen.
22. **RETURN**
    Returns to the previous menu.
23. **SP SETUP**
    Displays the Speaker Setup menu.
24. **TEST (PICTURE, TONE)**
    Press to output the test picture or test tone.
25. **SOUND FIELD (2CH/A.DIRECT, A.F.D., MOVIE, MULTI ST.)**
    Selects the sound field you want.
26. **TUNING +/–**
    Press to select a station.
27. ◿+ (*)/-
    Adjust the volume level.
28. 🔇
    Turns off the sound temporarily. Press the button again to restore the sound.

* The ◿+ button has tactile dot. Use the tactile dot as a reference when operating the receiver.

Note

- The above explanations are intended to serve as examples.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION (for USA and Canadian models only):

STR-ZA3000ES

With 6 ohm loads, both channels driven, from 20 – 20,000 Hz; rated 100 watts per channel minimum RMS power, with no more than 0.09% total harmonic distortion from 250 milliwatts to rated output.

STR-ZA2000ES

With 6 ohm loads, both channels driven, from 20 – 20,000 Hz; rated 95 watts per channel minimum RMS power, with no more than 0.09% total harmonic distortion from 250 milliwatts to rated output.

STR-ZA1000ES

With 6 ohm loads, both channels driven, from 20 – 20,000 Hz; rated 90 watts per channel minimum RMS power, with no more than 0.09% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

STR-ZA3000ES

POWER OUTPUT (*1) (*2)

Rated Power Output at Stereo Mode

(6 ohms 20 Hz – 20 kHz, THD 0.09%): 100 W + 100 W

Reference Power Output at Stereo Mode

(8 ohms 20 Hz – 20 kHz, THD 0.09%): 80 W + 80 W

Reference Power Output

(6 ohms 1 kHz, THD 0.9%)

FRONT: 120 W + 120 W

CENTER: 120 W

SURROUND: 120 W + 120 W

SURROUND BACK: 120 W + 120 W

Reference Power Output

(8 ohms 1 kHz, THD 0.9%)

FRONT: 110 W + 110 W

CENTER: 110 W

SURROUND: 110 W + 110 W

SURROUND BACK: 110 W + 110 W

Reference Power Output at Surround Mode (*3)

(6 ohms, 1 kHz, THD 0.9%)

150 W per channel

STR-ZA2000ES

POWER OUTPUT (*1) (*2)

Rated Power Output at Stereo Mode

(6 ohms 20 Hz – 20 kHz, THD 0.09%): 95 W + 95 W

Reference Power Output at Stereo Mode

(8 ohms 20 Hz – 20 kHz, THD 0.09%): 75 W + 75 W

Reference Power Output

(6 ohms 1 kHz, THD 0.9%)

FRONT: 120 W + 120 W

CENTER: 120 W

SURROUND: 120 W + 120 W

SURROUND BACK: 120 W + 120 W

Reference Power Output

(8 ohms 1 kHz, THD 0.9%)

FRONT: 100 W + 100 W

CENTER: 100 W

SURROUND: 100 W + 100 W

SURROUND BACK: 100 W + 100 W

Reference Power Output at Surround Mode (*3)

(6 ohms, 1 kHz, THD 0.9%)

150 W per channel

STR-ZA1000ES

POWER OUTPUT (*1) (*2)

Rated Power Output at Stereo Mode

(6 ohms 20 Hz – 20 kHz, THD 0.09%): 90 W + 90 W

Reference Power Output at Stereo Mode

(8 ohms 20 Hz – 20 kHz, THD 0.09%): 70 W + 70 W

Reference Power Output

(6 ohms 1 kHz, THD 0.9%)

FRONT: 120 W + 120 W

CENTER: 120 W

SURROUND: 120 W + 120 W

SURROUND BACK: 120 W + 120 W

Reference Power Output

(8 ohms 1 kHz, THD 0.9%)

FRONT: 90 W + 90 W

CENTER: 90 W

SURROUND: 90 W + 90 W

SURROUND BACK: 90 W + 90 W

Reference Power Output at Surround Mode (*3)

(6 ohms, 1 kHz, THD 0.9%)

150 W per channel

*1 Measured under the following conditions (Area: Power requirements):
USA and Canadian models: 120 V AC, 60 Hz
Other models: 230 V AC, 50 Hz

*2 Depending on the sound field settings and the source, there may be no sound output.

*3 Reference power output for front, center, surround, surround back speakers.

Frequency response (*4)

SA-CD/CD, TV, AUX, VIDEO:

10 Hz – 100 kHz/± 3 dB

Inputs (Analog)

SA-CD/CD, TV, AUX, VIDEO:

Sensitivity: 150 mV

Impedance: 50 kohms

S/N (*4): 105 dB (A, 20 kHz LPF. 500 mV)

*4 When [2ch Analog Direct] is being used.

Inputs (Digital)

IN (BD/DVD) (Coaxial):

Impedance: 75 ohms

S/N: 96 dB (A, 20 kHz LPF)

IN 1 (AUX), IN 2 (TV) (Optical):

S/N: 96 dB (A, 20 kHz LPF)

Outputs

ZONE 2 , ZONE 3 (AUDIO OUT):

Voltage: 2 V

Impedance: 1 kohm

FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER (for STR-ZA3000ES):

Voltage: 2 V

Impedance: 1 kohm

SUBWOOFER (for STR-ZA2000ES/STR-ZA1000ES)

Voltage: 2 V

Impedance: 1 kohm

FM tuner section

Tuning range: 87.5 MHz – 108.0 MHz
Antenna (aerial): FM wire antenna (aerial)
Antenna (aerial) terminals: 75 ohms, unbalanced

AM tuner section

Tuning range (USA and Canada):

530 kHz – 1,710 kHz (Tuning scale: 10 kHz step)

531 kHz – 1,710 kHz (Tuning scale: 9 kHz step)

Tuning range (other area):

531 kHz – 1,602 kHz (Tuning scale: 9 kHz step)

Antenna (aerial): Loop antenna (aerial)

Video section

Inputs/outputs

Video:

1 Vp-p, 75 ohms

COMPONENT VIDEO:

Y: 1 Vp-p, 75 ohms

PB: 0.7 Vp-p, 75 ohms

PR: 0.7 Vp-p, 75 ohms

80 MHz HD Pass Through

HDMI Video

Input/Output (HDMI Repeater block)

All HDMI IN/OUT jacks support 4K resolution.
The following HDMI jacks support High-bandwidth Digital Content Protection System Revision 2.2 (HDCP 2.2).
HDMI IN 2/IN 3, HDMI OUT A/OUT B (for STR-ZA3000ES)
HDMI IN 2, HDMI OUT A (for STR-ZA2000ES/STR-ZA1000ES)

4096 × 2160p @ 59.94/60 Hz:

2D (*1)

4096 × 2160p @ 50 Hz:

2D (*1)

4096 × 2160p @ 23.98/24 Hz:

2D (*2)

3840 × 2160p @ 59.94/60 Hz:

2D (*1)

3840 × 2160p @ 50 Hz:

2D (*1)

3840 × 2160p @ 29.97/30 Hz:

2D (*2)

3840 × 2160p @ 25 Hz:

2D (*2)

3840 × 2160p @ 23.98/24 Hz:

2D (*2)

1920 × 1080p @ 59.94/60 Hz:

2D
3D: Side-by-Side (Half)
3D: Over-Under (Top-and-Bottom)

1920 × 1080p @ 50 Hz:

2D
3D: Side-by-Side (Half)
3D: Over-Under (Top-and-Bottom)

1920 × 1080p @ 29.97/30 Hz:

2D
3D: Frame packing
3D: Side-by-Side (Half)
3D: Over-Under (Top-and-Bottom)

1920 × 1080p @ 25 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

1920 × 1080p @ 23.98/24 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

1920 × 1080i @ 59.94/60 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

1920 × 1080i @ 50 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

1280 × 720p @ 59.94/60 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

1280 × 720p @ 50 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

1280 × 720p @ 29.97/30 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

1280 × 720p @ 23.98/24 Hz:

2D

3D: Frame packing

3D: Side-by-Side (Half)

3D: Over-Under (Top-and-Bottom)

720 × 480p @ 59.94/60 Hz:

2D

720 × 576p @ 50 Hz:

2D

640 × 480p @ 59.94/60 Hz:

2D

*1 YCbCr 4:2:0/Supported 8-bit only

*2 Supported 8-bit only

General section

Power requirements

USA and Canadian models: 120 V AC, 60 Hz
Other models: 230 V AC, 50 Hz

Power consumption

290 W

Power consumption (during standby mode)

0.3 W (When [Control for HDMI], [Pass Through], [Network Standby] and [External Control] are set to [Off], and the power for zone 2/zone 3 is turned off.)

Dimensions (width/height/depth) (Approx.)

430 mm × 174 mm × 410 mm (17 in × 6 7/8 in × 16 1/4 in)
including projecting parts and controls

Mass (including the front cover) (Approx.)

STR-ZA3000ES: 13.4 kg (29 lb 9 oz)
STR-ZA2000ES: 13.0 kg (28 lb 11 oz)
STR-ZA1000ES: 12.3 kg (27 lb 2 oz)

Design and specifications are subject to change without notice.

Supplied accessories

Quick Setup Guide (1)

- Startup Guide (1)
- Reference Guide (1)
- Remote control (1)
- R03 (size AAA) batteries (2)
- AC power cord (mains lead) (1)
- AM loop antenna (aerial) (1)

- FM wire antenna (aerial) (1)

(for USA and Canadian models)

(for other models)

- Optimizer microphone (1)

- Front cover (1)

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md5.c, md5.h

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uri.c uri.h

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trarcfor.c

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trbignu2.c trbignum.c

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trcast.c

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Preneel, Bosselaers, Dobbertin, “The Cryptographic Hash Function RIPEMD-160”, RSA Laboratories, CryptoBytes, Volume 3, Number 2, Autumn 1997, ftp://ftp.rsasecurity.com/pub/cryptobytes/crypto3n2.pdf

trrsa.c

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trsha1.c

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FIPS pub 180-1: Secure Hash Algorithm (SHA-1) based on: http://csrc.nist.gov/fips/fip180-1.txt implemented by Jun-ichiro itojun Itoh <itojun@itojun.org>
sha1.c : Implementation of the Secure Hash Algorithm
SHA: NIST's Secure Hash Algorithm
This version written November 2000 by David Ireland of DI Management Services Pty Limited <code@di-mgt.com.au>
Adapted from code in the Python Cryptography Toolkit, version 1.0.0 by A.M. Kuchling 1995.
AM Kuchling's posting:-
Based on SHA code originally posted to sci.crypt by Peter Gutmann in message <30ajo5$oe8@ccu2.auckland.ac.nz>.
The original specification of SHA was found to have a weakness by NSA/NIST.
This code implements the fixed version of SHA.
Here's the first paragraph of Peter Gutmann's posting:
The following is my SHA (FIPS 180) code updated to allow use of the “fixed” SHA, thanks to Jim Gillogly and an anonymous contributor for the information on what's changed in the new version.
The fix is a simple change which involves adding a single rotate in the initial expansion function.
It is unknown whether this is an optimal solution to the problem which was discovered in the SHA or whether it's simply a bandaid which fixes the problem with a minimum of effort (for example the reengineering of a great many Capstone chips).

trsha2.c

$KAME: sha1.c,v 1.5 2000/11/08 06:13:08 itojun Exp $
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FIPS pub 180-2: Secure Hash Standard based on:
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trsha5.c

sha512.c - implementation of SHA256, SHA384 and SHA512
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trtwofsh.c

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trqsort.c

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trdeflate.c

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ALGORITHM
The “deflation” process depends on being able to identify portions of the input text which are identical to earlier input (within a sliding window trailing behind the input currently being processed).
The most straightforward technique turns out to be the fastest for most input files: try all possible matches and select the longest.
The key feature of this algorithm is that insertions into the string dictionary are very simple and thus fast, and deletions are avoided completely. Insertions are performed at each input character, whereas string matches are performed only when the previous match ends. So it is preferable to spend more time in matches to allow very fast string insertions and avoid deletions. The matching algorithm for small strings is inspired from that of Rabin & Karp. A brute force approach is used to find longer strings when a small match has been found.
A similar algorithm is used in comic (by Jan-Mark Wams) and freeze (by Leonid Broukhis).
A previous version of this file used a more sophisticated algorithm (by Fiala and Greene) which is guaranteed to run in linear amortized time, but has a larger average cost, uses more memory and is patented.
However the F&G algorithm may be faster for some highly redundant files if the parameter maxChainLength (described below) is too large.
ACKNOWLEDGEMENTS
The idea of lazy evaluation of matches is due to Jan-Mark Wams, and I found it in 'freeze' written by Leonid Broukhis.
Thanks to many people for bug reports and testing.
REFERENCES
Deutsch, L.P., “DEFLATE Compressed Data Format Specification”.
Available in http://www.ietf.org/rfc/rfc1951.txt
A description of the Rabin and Karp algorithm is given in the book “Algorithms” by R. Sedgewick, Addison-Wesley, p252.
Fiala,E.R., and Greene,D.H.
Data Compression with Finite Windows, Comm.ACM, 32,4 (1989) 490-595
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Jean-loup Gailly

jloup@gzip.org
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trinftrees.c

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trees.c

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The “deflation” process uses several Huffman trees. The more common source values are represented by shorter bit sequences.
Each code tree is stored in a compressed form which is itself a Huffman encoding of the lengths of all the code strings (in ascending order by source values).
The actual code strings are reconstructed from the lengths in the inflate process, as described in the deflate specification.
REFERENCES
Deutsch, L.P., “'Deflate' Compressed Data Format Specification”.
Available in ftp.uu.net:/pub/archiving/zip/doc/deflate-1.1.doc
Storer, James A.
Data Compression: Methods and Theory, pp. 49-50.
Computer Science Press, 1988. ISBN 0-7167-8156-5.
Sedgewick, R.
Algorithms, p290.
Addison-Wesley, 1983. ISBN 0-201-06672-6.
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trcrymap.h

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tropnssl.h

Modified from OPENSSL crypto/bn/bn_**.c and crypto/dh/dh_**.c

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wrap_clibif.c

A C-program for MT19937, with initialization improved 2002/1/26.
Coded by Takuji Nishimura and Makoto Matsumoto.
Before using, initialize the state by using init_genrand(seed) or init_by_array(init_key, key_length).
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Any feedback is very welcome.
http://www.math.sci.hiroshima-u.ac.jp/~m-mat/MT/emt.html
email: m-mat @ math.sci.hiroshima-u.ac.jp (remove space)

jsmn

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PROTECTOR

The receiver will automatically turn off after a few seconds. Check the following:

- There may be an electrical surge or power failure. Unplug the AC power cord (mains lead) and then plug in the cord again after 30 minutes.
- The receiver is covered and the ventilation holes are blocked. Remove the object covering the ventilation holes of the receiver.
- The impedance of the connected speakers is below the rated impedance range indicated on the back panel of the receiver. Reduce the volume level.
- Unplug the AC power cord (mains lead) and let the receiver cool down for 30 minutes while performing the following troubleshooting:
  - Disconnect all of the speakers and subwoofer.
  - Check that the speaker wires are tightly twisted on both ends.
  - Connect the front speaker first, increase the volume level and operate the receiver for at least 30 minutes until it completely warms up. Then, connect each additional speaker one by one and test each additional speaker until you detect which speaker is causing the protection error.

  After checking the above items and fixing any problems, plug in the AC power cord (mains lead) and turn on the receiver. If the problem persists, consult your nearest Sony dealer.

[133] Troubleshooting | Error messages

UPDATE FAILED

Insert a USB flash drive on which the package file for updating the receiver is saved, and then turn the receiver off and turn it on again.

[134] Troubleshooting | Error messages

FAN STOPPED (for STR-ZA3000ES)

Check that the ventilation holes on the top of the receiver are not blocked.

[135] Troubleshooting | Error messages

List of messages after Auto Calibration measurements

- **Code 31**:
  Front speakers are not selected properly. Select the front speakers using SPEAKERS and perform the Auto Calibration again. For details on selecting the front speakers, see "Selecting the front speakers."
- **Code 32, Code 33**:
  - Speakers were not detected or not connected properly.
  - None of the front speakers are connected or only one front speaker is connected.
  - Either the surround left or surround right speaker is not connected.
  - A surround back speaker is connected only to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 R terminal. If connecting only one surround back speaker, connect it to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 L terminal.
  - Either the front high left or front high right speaker is not connected.

  The optimizer microphone is not connected. Make sure that the optimizer microphone is connected properly and perform the Auto Calibration again.
  If the optimizer microphone is connected properly but the error code still appears, the optimizer microphone cable may be damaged.
- **Warning 40**:
  The measurement process has been completed and a high noise level has been detected. You may be able to achieve better results if you try the process again in a quiet environment.
- **Warning 41, Warning 42**:
  The input from the microphone is too large.
  - The distance between the speaker and the microphone may be too small. Set them further apart and perform the measurement again.
- **Warning 43**:
  The distance and position of a subwoofer cannot be detected. This may be caused by noise. Try performing the measurement in a quiet environment.
- **NO WARNING**:
  There is no warning information.

Network features message list

- **Invalid XXX** (*)**:**
  The entered value is incorrect or invalid.

* XXX represents an IP Address, Subnet Mask or Default Gateway.

[137] Troubleshooting | Power

The receiver is turned off automatically.

- [Auto Standby] is set to [On].
- The sleep timer function was activated.
- [PROTECTOR] was activated.
- [FAN STOPPED] was activated. (for STR-ZA3000ES)

[138] Troubleshooting | Power

The receiver does not turn on after performing USB Update.

- The USB Update procedure may not have been completed.
  While a USB flash drive containing the package file for updating the receiver is inserted, disconnect the AC power cord (mains lead) and connect it again.
  If the problem persists, consult your nearest Sony dealer.

[139] Troubleshooting | Image

No image appears on the TV.

- Select the appropriate input using the input buttons.
- Set your TV to the appropriate input mode.
- Move your audio device away from the TV.
- Assign the video input (HDMI, COMPONENT or VIDEO IN) correctly.
- When you are upconverting input signals using the receiver, use the same type of output signals as input signals.
- Make sure that cables are correctly and securely connected to devices.
- Some playback devices need to be set up. Refer to the operating instructions supplied with each device.
- Be sure to use a High Speed HDMI cable when you view images or listen to sound, especially for 1080p, Deep Color, 4K or 3D transmission.
- The output of the HDMI video signals of the receiver may be set to [HDMI OFF]. In this

case, set to [HDMI A], [HDMI B], or [HDMI A + B]. You can only select [HDMI B] or [HDMI A+B] when [HDMI Out B Mode] is set to [Main].
- If you want to playback HDCP 2.2 content, be sure to connect the playback device and TV to the HDCP 2.2 capable HDMI input and output of the receiver. Also check that the TV is compatible with HDCP 2.2.

---

[140] Troubleshooting | Image

No 3D image appears on the TV.

- Depending on the TV or the video device, 3D images may not be displayed. Check the HDMI video formats supported by the receiver.
- Be sure to use a High Speed HDMI cable.

---

[141] Troubleshooting | Image

No 4K image appears on the TV.

- Depending on the TV or the video device, 4K images may not be displayed. Check the video capability and settings of your TV and video device.
- Be sure to use a High Speed HDMI cable.
- If you want to playback HDCP 2.2 content, be sure to connect the playback device and TV to the HDCP 2.2 capable HDMI input and output of the receiver. Also check that the TV is compatible with HDCP 2.2.

---

[142] Troubleshooting | Image

No image is output from the TV when the receiver is in standby mode.

- Make sure [Pass Through] is set to [Auto] or [On] in the HDMI Setup menu. If [Auto] is selected, set it to [On].
- When [Pass Through] is set to [On] in the HDMI Setup menu and the receiver is set to standby mode with HDMI input selected, images are output from the HDMI device to the TV.

When [Control for HDMI] is set to [On], playing the connected device just with the One-Touch Play operation automatically switches the input to the connected device even while the receiver is in the standby mode.

---

[143] Troubleshooting | Image

The GUI menu does not appear on the TV screen.

- GUI is only available when you connect the TV to the HDMI OUT A jack.
- Press HOME to turn the GUI on.
- Check that the TV is connected correctly.
- Depending on the TV, the GUI menu may take some time to appear on the TV screen.

---

[144] Troubleshooting | Image

The display panel is turned off.

- If the Pure Direct function is enabled, press PURE DIRECT to turn off the Pure Direct function.
- Check the DIMMER setting.

---

[145] Troubleshooting | Sound

No sound or only a very low level of sound is heard, no matter which device is selected.

- Check that all connecting cables are inserted to their input/output jacks on the receiver, speakers and the devices.
- Check that the receiver and all devices are turned on.
- Check that MASTER VOLUME on the receiver is not set to [VOLUME MIN] or [VOLUME -∞dB].
- Check that SPEAKERS on the receiver is not set to [SPEAKERS OFF].
- Press 🔇 to cancel the muting function.
- Try pressing the input button on the remote control or on the receiver to select the device of your choice.

- If you want to listen to sound from the TV speaker in the main zone, set [Audio Out] to [TV+AMP] in the HDMI Setup menu. If you cannot play multi-channel audio source, set [AMP]. However, the sound will not be output through the TV speaker.
- If you want to listen to sound from the TV speaker in zone 2, set [Zone2 Audio Out] to [Zone2 TV + AMP] in the HDMI Setup menu.
- Sound may be interrupted when the sampling frequency, number of channels or audio format of audio output signals from the playback device is switched.

---

[146] Troubleshooting | Sound

There is severe humming or noise.

- Check that the speakers and device are connected securely.
- Check that the connecting cables are not near a transformer or motor, and are at least 3 meters (10 feet) away from a TV set or fluorescent light.
- Move your audio device away from the TV.
- The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.

---

[147] Troubleshooting | Sound

No sound or only a very low level of sound is heard from specific speakers.

- Make sure you have connected to both the L and R jacks of an analog device, as analog devices require both L and R jack connections. Use an audio cable (not supplied).
- Adjust the speaker level.
- Check that the speaker settings are appropriate for the setup using [Auto Calibration] or [Speaker Pattern] in the Speaker Setup menu. Then check that sound is output from each speaker correctly using [Test Tone] in the Speaker Setup menu.
- Some discs have no Dolby Digital Surround EX information. In this case, sound may not be output from some speakers.
- Check that the subwoofer is connected correctly and securely.
- Make sure you have turned on your subwoofer.
- Depending on the selected sound field, sound may not be available from the subwoofer.
- There is no sound from the subwoofer when all speakers are set to [Large] and [Neo:6] is selected.

There is no sound from a specific device.

- Check that the device is correctly connected to the corresponding audio input jacks.
- Check that the cable(s) used for the connection is (are) fully inserted into the jacks on both the receiver and the device.
- Check the Input Mode setting.
- Check that the device is correctly connected to the corresponding HDMI jack.
- The HDMI settings of some playback devices need to be configured. Refer to the operating instructions supplied with each device.
- Be sure to use a High Speed HDMI cable when you view images or listen to sound, especially for 1080p, Deep Color, 4K or 3D transmission.
- Sound may not be output from the receiver while the GUI appears on the TV screen. Press HOME to turn the GUI off.
- Audio signals (format, sampling frequency, bit length, etc.) transmitted from an HDMI jack may be suppressed by the connected device. Check the setup of a device connected device connected via an HDMI cable if the image is poor or the sound does not come out of the device.
- When a connected device does not support the copyright protection technology (HDCP), the image and/or the sound from the HDMI OUT jack may be distorted or may not be output. If this is the case, check the specifications of the connected device.
- Set the image resolution of the playback device to more than 720p/1080i to enjoy High Bitrate Audio (DTS-HD Master Audio, Dolby TrueHD).
- The image resolution of the playback device may need to be configured to certain settings before you can enjoy DSD and Multi Channel Linear PCM. Refer to the operating instructions of the playback device.
- Make sure the TV supports the System Audio Control function.
- If the TV does not have a System Audio Control function, set [Audio Out] in the HDMI Setup menu to:
  - [TV+AMP] if you want to listen to the sound from the TV speaker and receiver.
  - [AMP] if you want to listen to the sound from the receiver only.
- If the receiver is connected to a video device such as a projector and operated in the main zone, sound may not be output from the receiver. In this case, set [Audio Out] to [AMP] in the HDMI Setup menu.
- If a video device such as a projector is connected to the HDMI OUT B jack and [HDMI Out B Mode] is set to [Zone2], sound may not be output from the receiver. In this case, set [Zone2 Audio Out] to [AMP] in the HDMI Setup menu.
- You cannot listen to the sound of a device connected to the receiver while TV input is selected on the receiver.
  - Be sure to change the input of the receiver to HDMI if you want to watch a program on a device

connected via HDMI connection to the receiver.
  - Change the TV channel if you want to watch a TV broadcast.
  - Be sure to select the correct device or input when watching a program from a device connected to the TV. Refer to the section on this operation in the operating instructions of the TV.
- Sound is not output if you use [2ch Analog Direct] when an HDMI input or digital input (COAXIAL, OPTICAL) is selected. Use another sound field.
- When using the Control for HDMI function, you cannot control connected devices using the remote control of the TV.
  - Some devices and TVs need to be set up. Refer to the operating instructions supplied with each device and TV.
  - Change the input of the receiver to the HDMI input connected to the device.
- Check that the selected digital audio input jack is not assigned to another input.

---

[149] Troubleshooting | Sound

The left and right sound is unbalanced or reversed.

- Check that the speakers and device are connected correctly and securely.
- Adjust the sound level parameters using the Speaker Setup menu.

---

[150] Troubleshooting | Sound

Dolby Digital or DTS multi-channel sound is not reproduced.

- Check that the DVD, etc. you are playing is recorded in Dolby Digital or DTS format.
- When connecting the DVD player, etc., to the digital input jacks of this receiver, make sure the digital audio output setting of the connected device is available.
- Set [Audio Out] to [AMP] in the HDMI Setup menu.
- You can only enjoy High Bitrate Audio (DTS-HD Master Audio, Dolby TrueHD), DSD and Multi Channel Linear PCM with an HDMI connection.

---

[151] Troubleshooting | Sound

The surround effect cannot be obtained.

- Make sure you have selected a sound field for movies.
- [Pro Logic II], [Pro Logic IIx], and [Neo:6] do not work when the speaker pattern is set to 2/0 or 2/0.1.
- If you connect your TV via an HDMI connection and enable the Control for HDMI function, the sound field automatically switches to [Multi Stereo] when you start using the Social Viewing function on your TV.

---

[152] Troubleshooting | Sound

A test tone is not output from the speakers.

- The speaker cables may not be connected securely. Check that they are connected securely and cannot be disconnected by pulling on them slightly.
- The speaker cables may have short-circuited.

---

[153] Troubleshooting | Sound

A test tone is output from a different speaker than the speaker displayed on the TV screen.

- The speaker pattern setup is incorrect. Make sure that the speaker connections and the speaker pattern match correctly.

---

[154] Troubleshooting | Sound

No sound is output from the TV when the receiver is in standby mode.

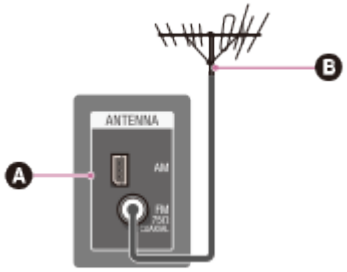
- Make sure [Pass Through] is set to [Auto] or [On] in the HDMI Setup menu. If [Auto] is selected, set it to [On].
- When [Pass Through] is set to [On] in the HDMI Setup menu and the receiver is set to standby mode with HDMI input selected, sound is output from the HDMI device to the TV. When [Control for HDMI] is set to [On], playing the connected device just with the One-Touch Play operation automatically switches the input to the connected device even while

the receiver is in the standby mode.

[155] Troubleshooting | Tuner

The FM reception is poor.

- Use a 75-ohm coaxial cable (not supplied) to connect the receiver to an outdoor FM antennas (aerial) as shown below.



A Receiver
B Outdoor FM antenna (aerial)

[156] Troubleshooting | Tuner

The FM stereo reception is poor.

- Set FM mode to monaural.

[157] Troubleshooting | Tuner

You cannot tune to radio stations.

- Check that the antennas (aerials) are connected securely. Adjust the antennas (aerials) and connect an external antenna (aerial) if necessary.
- The signal of the stations is too weak with automatic tuning. Use direct tuning.
- Make sure you set the tuning scale correctly (when tuning to AM stations with direct tuning).
- No stations have been preset or the preset stations have been cleared (when tuning by scanning preset stations is used). Preset the stations.
- Press DISPLAY repeatedly on the receiver so that the frequency appears on the display

panel.

[158] Troubleshooting | USB devices

A USB device is not recognized.

- Turn off the receiver, then disconnect the USB device. Turn on the receiver again and reconnect the USB device.
- Connect a compatible USB device. USB devices are only supported when formatted with the FAT16 or FAT32 file systems.
- The USB device does not work properly. Refer to the section on how to deal with this problem in the operating instructions of the USB device.

[159] Troubleshooting | USB devices

A USB device cannot be connected to the USB port.

- The USB cable is being plugged in upside down. Connect the plug in the correct orientation.

[160] Troubleshooting | Network connection

An error message appears.

- Check the nature of the error. See “Network features message list.”

[161] Troubleshooting | Network connection

Cannot connect to the network.

- Check that the LAN cable is connected to the receiver when you want to connect the receiver to the network via a wired LAN connection.
- Check the network information. If [Not Connected] appears, set up the network

connection again.

[162] Troubleshooting | “BRAVIA” Sync (Control for HDMI)

The Control for HDMI function does not work.

- Check the HDMI connection.
- Make sure [Control for HDMI] is set to [On] in the HDMI Setup menu.
- Make sure the connected device supports the Control for HDMI function.
- Check the Control for HDMI settings on the connected device. Refer to the operating instructions of the connected device.
- If you unplug the HDMI cable or change the connection, repeat the procedures of “Preparing for “BRAVIA” Sync.”
- When [Control for HDMI] is set to [Off], “BRAVIA” Sync does not work properly, even if the device is connected to the HDMI IN jack.
- The types and number of devices that can be controlled by the “BRAVIA” Sync feature are restricted by the HDMI CEC standard as follows:
  - Recording devices (Blu-ray Disc recorders, DVD recorders, etc.): up to 3 devices
  - Playback devices (Blu-ray Disc Player, DVD players, etc.): up to 3 devices
  - Tuner-related devices: up to 4 devices (the receiver uses one of them for its GUI operations.)
  - AV receivers (audio systems): up to 1 device
- Make sure your TV is connected to the HDMI OUT A jack of the receiver.
- Make sure the HDMI OUTPUT setting is set to [HDMI A] or [HDMI A+B].

[163] Troubleshooting | “BRAVIA” Sync (Control for HDMI)

The Audio Return Channel (ARC) function does not work.

- Make sure [Control for HDMI] is set to [On] in the HDMI Setup menu.
- Make sure [Input Mode] for the TV input is set to [Auto].
- Make sure your TV supports the ARC function.
- If your TV has multiple HDMI input jacks, make sure the receiver is connected to the one supports the ARC function.
- Make sure your TV is connected to the HDMI OUT A jack of the receiver.
- Make sure the HDMI OUTPUT setting is set to [HDMI A] or [HDMI A+B].

[164] Troubleshooting | Remote control

The remote control does not function.

- Point the remote control at the remote control sensor on the receiver.
- Remove any obstructions between the remote control and the receiver.
- Replace both of the batteries in the remote control with new ones if they are weak.

[165] Troubleshooting | If the problem is not solved

Reverting to the factory default settings

You can clear all memorized settings and restore the receiver to the factory default settings by the following procedure. This procedure can also be used to initialize the receiver before you use it for the first time.
Be sure to use the buttons on the receiver to perform this operation.

1. Turn off the receiver.
2. Hold down I/⏻ (on/standby) on the receiver for 5 seconds.
   [MEMORY CLEARING] appears on the display panel for a while, then changes to [MEMORY CLEARED!] .

Note

- Do not turn the receiver off until [MEMORY CLEARED!] appears on the display panel.

[166] Troubleshooting | If the problem is not solved

Resetting sound fields to the default settings

Be sure to use the buttons on the receiver to perform this operation.

1. Turn off the receiver.
2. Hold down MULTI ST. and press I/⏻ (on/standby) on the receiver.
   [S.F. INITIALIZED!] appears on the display panel and all sound fields are reset to their

default setting.

[167] Troubleshooting | If the problem is not solved

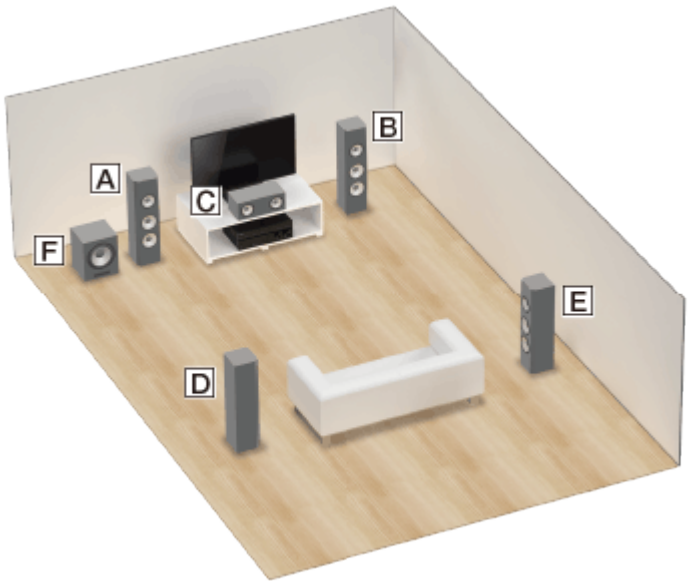
Customer support websites

Refer to the following websites for the latest information on the receiver.

For customers in the USA:
http://esupport.sony.com/
For customers in Canada:
http://esupport.sony.com/CA/
For customers in Latin America:
http://esupport.sony.com/LA
For customers in Australia and New Zealand:
http://www.sony.com.au/section/support

5.1-channel speaker system

To fully enjoy theater-like multi-channel surround sound, you need five speakers (two front speakers, a center speaker, and two surround speakers) and a subwoofer.



A **Front speaker (Left)**
B **Front speaker (Right)**

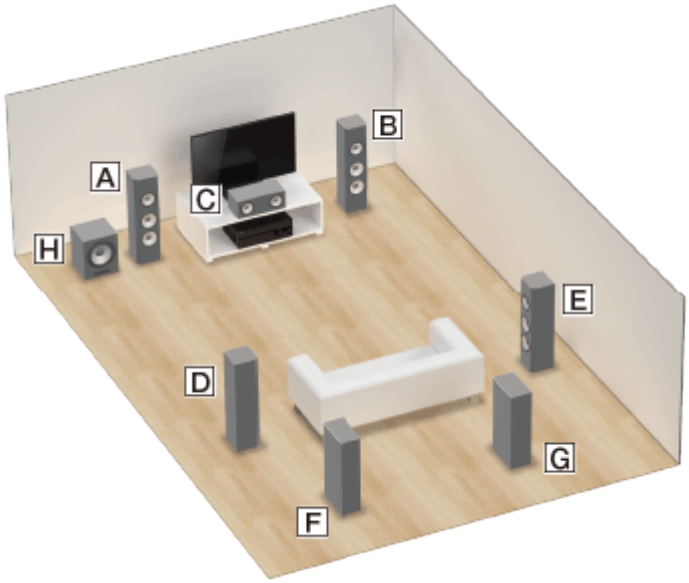
C **Center speaker**
D **Surround speaker (Left)**
E **Surround speaker (Right)**
F **Subwoofer**

Hint

- As the subwoofer does not emit highly directional signals, you can place it wherever you want.

7.1-channel speaker system using surround back speakers

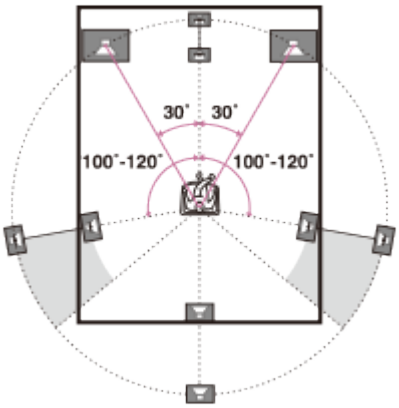
You can enjoy high-fidelity reproduction of recorded sound from DVD or Blu-ray Disc software in 6.1-channel or 7.1-channel format.



A **Front speaker (Left)**
B **Front speaker (Right)**
C **Center speaker**
D **Surround speaker (Left)**
E **Surround speaker (Right)**
F **Surround back speaker (Left)**
G **Surround back speaker (Right)**
H **Subwoofer**

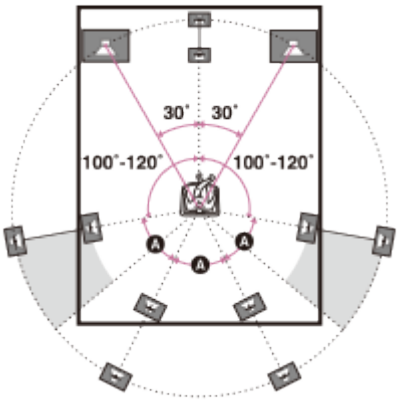
6.1-channel speaker placement

Place the surround back speaker behind the listening position.



7.1-channel speaker placement

Place the surround back speakers as shown in the illustration below. The angles shown by Ⓐ should be the same.

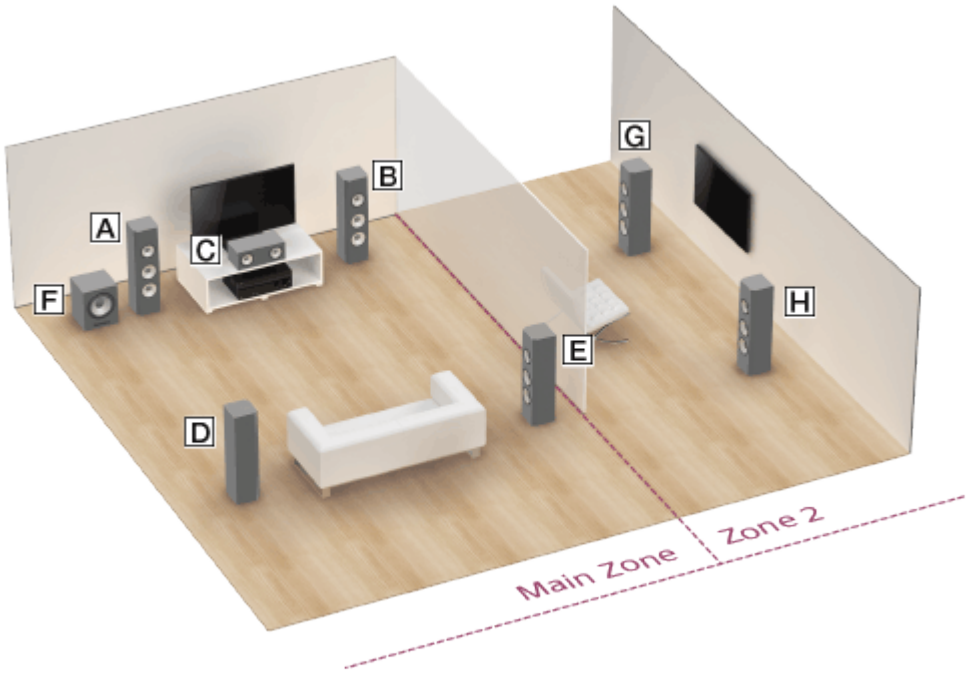


Hint

- As the subwoofer does not emit highly directional signals, you can place it wherever you want.

5.1 -channel speaker system and zone 2

If you make a 5.1ch connection in the main zone, you can also enjoy the sound in another location (“Zone 2”) by connecting additional zone 2 speakers.



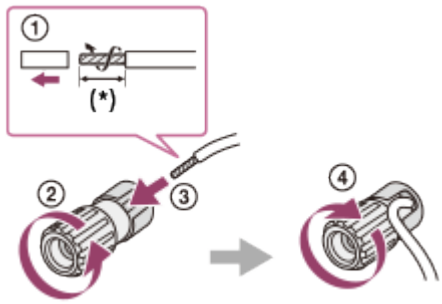
A **Front speaker (Left)**
B **Front speaker (Right)**
C **Center speaker**
D **Surround speaker (Left)**
E **Surround speaker (Right)**
F **Subwoofer**
G **Zone 2 speaker (Left)**
H **Zone 2 speaker (Right)**

Hint

- As the subwoofer does not emit highly directional signals, you can place it wherever you want.

How to connect speaker cables

Connect speaker cables as illustrated below.



*

Strip the jacket to 10 mm (13/32 in) at each end of the speaker cables.

About Auto Calibration

Auto Calibration allows you to perform automatic calibration as follows.

- Check the connection between each speaker and the receiver.
- Adjust the speaker level.
- Measure the distance of each speaker from your seating position. (*1)
- Measure the speaker size. (*1)
- Measure the frequency characteristics (EQ). (*1)
- Measure the frequency characteristics (Phase). (*1, *2)

*1 The measurement result is not utilized when [2ch Analog Direct] is selected.

*2 The measurement result may be not utilized, depending on the audio formats.

Note

- The D.C.A.C. is designed to achieve proper sound balance for your room. However, you can adjust the speaker levels manually according to your preference using [Test Tone].

Before you perform Auto Calibration

Before you perform Auto Calibration, check the following items:

- Set up and connect the speakers.
- Do not connect any microphones other than the supplied optimizer microphone to the AUTO CAL MIC jack.
- If using a bi-amplifier connection or speakers with a front B connection, set the assignment for the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals properly. For details, see “Setting the assignment for the speaker terminals (SB Speaker Assign).”
- Set the speaker output to a setting other than [SPEAKERS OFF]. For details, see “Selecting the front speakers.”
- Remove any obstructions between the optimizer microphone and the speakers.
- For accurate measurement, make sure the environment is quiet and free from noise.

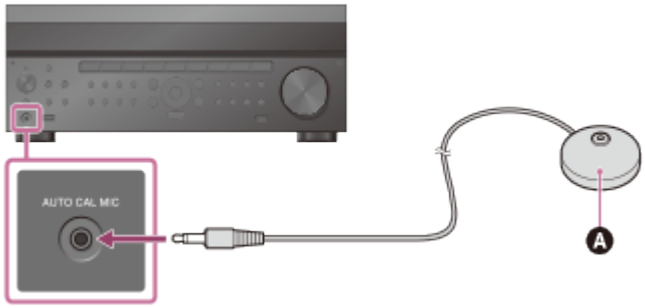
Note

- The speakers emit very loud sound during the calibration and the volume cannot be

adjusted. Be considerate of your neighbors and any children who are present.

- If the muting function has been activated before you perform Auto Calibration, the muting function will shut off automatically.
- It may not be possible to take the correct measurements or to perform Auto Calibration at all if special speakers such as dipole speakers are used.

Connecting the optimizer microphone

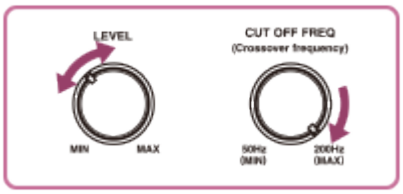


Ⓐ Optimizer microphone (supplied)

1. Connect the supplied optimizer microphone to the AUTO CAL MIC jack.
2. Set up the optimizer microphone.
   Place the optimizer microphone where you will sit and set it at the same height as your ears.

Confirming active subwoofer setup

- When a subwoofer is connected, turn on the subwoofer and turn up the volume prior to activating the subwoofer. Turn the LEVEL to just before the mid-point.
- If you connect a subwoofer with a crossover frequency function, set the value to maximum.
- If you connect a subwoofer with an auto standby function, set it to off (deactivated).



Note

- Depending on the characteristics of the subwoofer you are using, the setup distance value may be different from the actual position.

Selecting the front speakers

You can select the front speakers you want to operate.
Be sure to use the buttons on the receiver to perform this operation.

1. Press SPEAKERS on the receiver repeatedly to select the front speaker system you want to operate.

The indicators on the display panel shows which set of terminals are selected.

- **SP A :**
  Speakers connected to the SPEAKERS FRONT A terminals.
- **SP B** (*1)**:**
  Speakers connected to the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals.
- **SP AB** (*1)**:**
  Speakers connected to both the SPEAKERS FRONT A and SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals (parallel connection).
- **(None):**
  [SPEAKERS OFF] appears on the display panel. No audio signals are output from any speaker terminals, or the PRE OUT (*2) jacks.

*1 To select [SP B] or [SP AB], set the assignment for the SPEAKERS SURROUND BACK/FRONT HIGH/FRONT B/BI-AMP/ZONE 2 terminals to [Front B] by using [SB Speaker Assign] in the Speaker Setup menu.

*2 The PRE OUT jacks are only for STR-ZA3000ES.

Checking Auto Calibration results

To check error codes or warning messages received in [Auto Calibration], proceed with the following steps:

If an error code appears

Check the error and perform Auto Calibration again.

1. Select [Retry].
2. Follow the instructions on the TV screen and then press ⊹ to select [Start].
   The measurement starts in five seconds.
   The measurement process will take approximately 30 seconds with a test tone.
   When the measurement ends, a beep sounds and the screen switches.
3. Select the item you want.
   - **Save:** Saves the measurement results and exits the setting process.
   - **Retry:** Performs the Auto Calibration again.
   - **Discard:** Exits the setting process without saving the measurement results.
4. Save the measurement results.
   Select [Save] in step 3.

If a warning message appears

Check the warning message and select [OK]. For details on the warning messages, see “List of messages after Auto Calibration measurements.”

Hint

- The measurement results may vary depending on the position of the subwoofer.
  However, continuing to use the receiver with that value does not cause problems.

Auto Format Direct (A.F.D.)

This mode allows you to listen to higher-fidelity sound.

Auto Format Direct (A.F.D.):

Presets the sound as it was recorded/encoded without adding any surround effects. However, this receiver will generate a low-frequency signal for output to the subwoofer when there is no LFE signals.

2-channel sound mode

You can switch the output sound to 2-channel sound regardless of the recording formats of the software you are using, the playback device connected, or the sound field settings of the receiver.

2ch Stereo (2CH STEREO):
The receiver outputs the sound from the front left/right speakers only. There is no sound from the subwoofer.
Standard 2-channel stereo sources completely bypass the sound field processing and multi-channel surround formats are downmixed to 2-channels.

2ch Analog Direct (ANALOG DIRECT):
You can switch the audio of the selected input to 2-channel analog input. This function enables you to enjoy high-quality analog sources.
Only the volume and front speaker level can be adjusted when using this function.

Note

- You cannot select [2ch Analog Direct] while using the BD/DVD, SAT/CATV, GAME or STB function.

Multi Stereo

This mode allows you to select the decoding mode for listening to 2-channel stereo or monaural audio as multi-channel audio.

Multi Stereo (MULTI STEREO):
Outputs 2-channel left/right or monaural signals from all speakers. Recorded/encoded multi-channel signals are output as recorded/encoded without the addition of sound effects. However, sound may not be output from certain speakers depending on the speaker settings.

Movie mode

You can take advantage of surround sound simply by selecting one of the receiver's pre-programmed sound fields. They bring the exciting and powerful sound of movie theaters into your home.

HD-D.C.S.:
HD Digital Cinema Sound (HD-D.C.S.) is Sony's new innovative home theater technology using the latest acoustic and digital signal processing technologies. It is based on the precise response measurement data of a mastering studio.
With this mode, you can enjoy Blu-ray and DVD movies at home with not only a high-quality of sound but also the best sound ambience, just as the movie's sound engineer intended in the mastering process.

- **Dynamic:** This setting is suitable for an environment which is reverberant but lacks a spacious feel (where sound absorption is not sufficient). It emphasizes the reflection of sound and reproduces the sound of a large, classic movie theater. This emphasizes the spacious feel of a dubbing theater and creates a unique acoustic field.
- **Theater:** This setting is suitable for a general living room. It reproduces the reverberation of sound just like in a movie theater (dubbing theater). It is most appropriate for watching content recorded on a Blu-ray Disc when you want the atmosphere of a movie theater.
- **Studio:** This setting is suitable for a living room with the appropriate sound devices. It reproduces the reverberation of sound provided when a theatrical sound source is remixed for a Blu-ray Disc to a volume level suitable for home use. The level of reflection and reverberation of sound is kept to a minimum, while dialogues and surround effects are reproduced vividly.

Pro Logic II (PRO LOGIC II):
Performs Dolby Pro Logic II Movie mode decoding. This setting is ideal for movies encoded in Dolby Surround. In addition, this mode can reproduce sound in 5.1-channel format when watching videos of overdubbed or old movies.

Pro Logic IIx (PRO LOGIC IIx):
Performs Dolby Pro Logic IIx Movie mode decoding. This setting expands Dolby Pro Logic II Movie or Dolby Digital 5.1 to 7.1 discrete movie channels.

Neo:6:
Performs DTS Neo:6 Cinema mode decoding. Sources recorded in 2-channel format are enhanced up to 7 channels.

Enjoying an input source from a connected device immediately (One-Touch Play)

When you play content on a device connected to the receiver via an HDMI connection, the receiver is also automatically turned on and switched to the appropriate HDMI input.

Note

- Depending on the TV, the start of the content may not appear.

Enjoying TV sound from the speakers connected to the receiver (System Audio Control)

You can use the System Audio Control function as follows:

- The sound of the TV is output from the speakers connected to the receiver if you turn the receiver on while sound is being output from the TV speaker. If you turn off the receiver, the sound is output from the TV speaker.
- When you adjust the TV volume, the System Audio Control function adjusts the volume of the receiver simultaneously.

Note

- When [Control for HDMI] is set to [On], the [Audio Out] settings in the HDMI Setup menu will be set automatically based on the System Audio Control settings.
- Depending on the TV you use, numbers indicating the volume level of the receiver may appear just like when you change the TV volume level. These numbers may be different from those displayed on the display panel of the receiver.

Hint

- You can also operate this function using the TV menu. For details, refer to the operating instructions of the TV.

Turning off the receiver and connected devices simultaneously with the TV (System Power-Off)

If the TV, receiver and any connected devices are connected to each other via HDMI connections, you can turn them off simultaneously by pressing either of the following buttons:

- The power button on the remote control of the TV

Note

- Turn on the power supply interlock function of the TV before using the System Power-Off function. For details, refer to the operating instructions of the TV.
- Some connected devices may not be turned off depending on their specifications. For details, refer to the operating instructions of the connected device.

Selecting the optimum picture quality and sound field automatically (Scene Select)

The optimum picture quality and sound field are selected automatically according to the scene selected on your TV.
For details on this operation, refer to the operating instructions of the TV.

Switching the sound field for the scene selected on your TV (Scene: Sound field)

- **Cinema:** HD-D.C.S.
- **Sports:** Multi Stereo
- **Music:** Multi Stereo
- **Animation:** Multi Stereo
- **Photo:** Multi Stereo
- **Game:** Multi Stereo
- **Graphics:** Multi Stereo

Note

- The sound field may not change depending on some TVs.

Home Theatre Control

If a Home Theatre Control-compatible TV is connected to the receiver, an icon for Internet

based applications appears on the connected TV.
You can switch an input of the receiver or switch sound fields by using the remote control of your TV. You can also adjust the level of the center speaker or the subwoofer, or adjust the settings of [Sound Optimizer], [Dual Mono], or [A/V Sync].

Note

- Your TV must be able to access a broadband service to use the Home Theatre Control function.

Operating the receiver menu using the TV remote control (Remote Easy Control)

You can use the remote control of the TV to operate the menu of the receiver. For details, refer to the operating instructions of the TV.

Note

- The receiver is recognized as [Tuner] by the TV.
- Your TV must support the link menu.
- Some of the operations may not be available depending on the type of TV.

Naming preset stations (Name Input)

1. Select [Listen] - [FM TUNER] or [AM TUNER] from the home menu.
   If the Simple mode screen appears, switch to the Full mode screen.
2. Select the preset number to which you want to assign a name.
3. Press OPTIONS.
   The options menu appears.
4. Select [Name Input].
   An on-screen keyboard appears on the TV screen.
5. Press ↑ / ↓ / ← / → and ⊡ to select characters one by one to enter the name.
6. Select [Enter].

The name you entered is registered.

Canceling naming input

Press RETURN.

Note

- Some letters that can be displayed on the TV screen cannot be displayed on the display panel.

Menu list (on the display panel)

The following options are available in each menu.

1. Input Setup [1. INPUT SETUP]

- **BD/DVD [1.1. BD/DVD]**
- **SAT/CATV [1.2. SAT/CATV]**
- **GAME [1.3. GAME]**
- **STB [1.4. STB]**
- **VIDEO [1.5. VIDEO]**
- **AUX [1.6. AUX]**
- **TV [1.7. TV]**
- **SA-CD/CD [1.8. SA-CD/CD]**

2. Speaker Setup [2. SPEAKER SETUP]

- **Auto Calibration [2.1. AUTO CALIBRATION]**
- **Automatic Phase Matching [2.2. AUTOMATIC PHASE MATCHING]** (*1)
  AUTO, OFF
- **Calibration type [2.3. CALIBRATION TYPE]** (*1)
  FULL FLAT, ENGINEER, FRONT REF., OFF
- **Speaker pattern [2.4. SPEAKER PATTERN]**
  5/2.1 to 2/0 (20 patterns)
- **Surround back speaker assign [2.5. SB SPEAKER ASSIGN]** (*2)
  ZONE2, BI-AMP, FRONT B, OFF
- **Size [2.6. SIZE]**
  XXX LARGE or XXX SMALL (*3)
- **Distance [2.7. DISTANCE]**
  XXX 1.00 m to XXX 10.00 m (XXX 3’3” to XXX 32’9”) (0.01 m (1 inch) interval) (*4)
- **Level [2.8. LEVEL]**
  XXX -10.0 dB to XXX +10.0 dB (0.5 dB interval) (*4)

Test Tone [2.9. TEST TONE] (*5)
OFF, AUTO XXX -10.0 dB to XXX +10.0 dB (1 dB interval), FIX XXX -10.0 dB to XXX +10.0 dB (1 dB interval) (*4)

- **Crossover Frequency [2.10. CROSSOVER FREQUENCY]**
  XXX 40 Hz to XXX 200 Hz (10 Hz interval) (*3) (*6)
- **Equalizer [2.11 . EQUALIZER]**
  XXX TREBLE -10.0 dB to XXX TREBLE +10.0 dB (1 dB interval), XXX BASS -10.0 dB to XXX BASS +10.0 dB (1 dB interval) (*3)
- **Center Speaker Lift Up [2.12. CENTER SPEAKER LIFT UP]**
  1 to 10, OFF
- **Ceiling Speaker Height [2.13. CEILING SPEAKER HEIGHT]**
  2.00 m to 10.00 m (6’6” to 32’9”) (0.01 m (1 inch) interval)
- **Distance Unit [2.14. DISTANCE UNIT]**
  METER, FEET

3. Network Setup [3. NETWORK SETUP]

- **Internet Setup [3.1. INTERNET SETUP]**
- **Information [3.2. INFORMATION]**
- **Network Standby [3.3. NETWORK STANDBY]**
  ON, OFF
- **Music Connect [3.4. MUSIC CONNECT]**

4. Audio Setup [4. AUDIO SETUP]

- **Digital Legato Linear [4.1. DIGITAL LEGATO LINEAR]**
  AUTO1, AUTO2, OFF
- **Sound Optimizer [4.2. SOUND OPTIMIZER]**
  NORMAL, LOW, OFF
- **Sound Field [4.3. SOUND FIELD]**
  2CH STEREO, ANALOG DIRECT, A.F.D., HD-D.C.S., PRO LOGIC II, PRO LOGIC IIx, Neo:6, MULTI STEREO
- **HD-D.C.S. type [4.4. HD-D.C.S. TYPE]** (*7)
  DYNAMIC, THEATER, STUDIO
- **In-Ceiling Speaker Mode [4.5. IN-CEILING SPEAKER MODE]**
  ON, OFF
- **Pure Direct [4.6. PURE DIRECT]**
  ON, OFF
- **Subwoofer Low Pass Filter [4.7. SUBWOOFER LOW PASS FILTER]**
  ON, OFF
- **Synchronizes audio with video output [4.8. A/V SYNC]**
  HDMI AUTO, 0 ms to 300 ms (10 ms interval)
- **Digital broadcast language selection [4.9. DUAL MONO]**
  MAIN, SUB, MAIN/SUB
- **Dynamic Range Compressor [4.10. DYNAMIC RANGE COMPRESSOR]**

AUTO, ON, OFF

5. HDMI Setup [5. HDMI SETUP]

- **4K Scaling [5.1. 4K SCALING]**
  AUTO, OFF
- **Control for HDMI [5.2. CONTROL FOR HDMI]**
  ON, OFF
- **Pass Through [5.3. PASS THROUGH]**
  AUTO, ON, OFF
- **HDMI Audio Out [5.4. AUDIO OUT]**
  AMP, TV+AMP
- **HDMI Zone2 Audio Out [5.5. ZONE2 AUDIO OUT]**
  AMP, ZONE2 TV+AMP, ZONE2 AMP
- **HDMI Subwoofer Level [5.6. SUBWOOFER LEVEL]**
  AUTO, +10 dB, 0 dB
- **HDMI OUTB Mode [5.7. HDMI OUTB MODE]**
  MAIN, ZONE2
- **Priority [5.8. PRIORITY]**
  MAIN&ZONE2, MAIN ONLY
- **Fast View [5.9. FAST VIEW]**
  AUTO, OFF

6. Zone Setup [6. ZONE SETUP]

- **Main Preset Volume [6.1. MAIN PRESET VOLUME]**
  OFF, -oodB, -92.0dB to +23.0dB
- **Zone2 Power [6.2. ZONE2 POWER]**
  ON, OFF
- **Zone2 Input [6.3. ZONE2 INPUT]**
  SOURCE, BD/DVD, SAT/CATV, GAME, STB, VIDEO, AUX, TV, SA-CD/CD, FM TUNER, AM TUNER
- **Zone2 Volume [6.4. ZONE2 VOLUME]**
  -oodB, -92.0dB to +23.0dB
- **Zone2 Preset Volume [6.5. ZONE2 PRESET VOLUME]**
  OFF, -oodB, -92.0dB to +23.0dB
- **Zone2 Line Out [6.6. ZONE2 LINE OUT]**
  VARIABLE, FIXED
- **Zone3 Power [6.7. ZONE3 POWER]**
  ON, OFF
- **Zone3 Input [6.8. ZONE3 INPUT]**
  SOURCE, VIDEO, AUX, TV, SA-CD/CD, FM TUNER, AM TUNER
- **Zone3 Volume [6.9. ZONE3 VOLUME]**
  -oodB, -92.0dB to +23.0dB
- **Zone3 Preset Volume [6.10. ZONE3 PRESET VOLUME]**

OFF, -oodB, -92.0dB to +23.0dB

- **Zone3 Line Out [6.11. ZONE3 LINE OUT]**
  VARIABLE, FIXED

7. System Setup [7. SYSTEM SETUP]

- **Language [7.1. LANGUAGE]**
  ENGLISH, SPANISH, FRENCH
- **Auto Display [7.2. AUTO DISPLAY]**
  ON, OFF
- **Auto standby mode [7.3. AUTO STANDBY]**
  ON, OFF
- **Volume Display [7.4. VOLUME DISPLAY]**
  RELATIVE, ABSOLUTE
- **Dimmer [7.5. DIMMER]**
  100%, 60%, 0%
- **Sleep timer [7.6. SLEEP]**
  OFF - 0:30:00 - 1:00:00 - 1:30:00 - 2:00:00
- **Software Version [7.7. SOFTWARE VERSION]**
  x.xxx (*8)
- **USB Update [7.8. USB UPDATE]**
- **Tuner Setup [7.9. TUNER SETUP]**

8. Install Setup [8. INSTALL SETUP]

- **External Control [8.1. EXTERNAL CONTROL]**
  ON, OFF
- **Trigger 1 [8.2. TRIGGER 1]** (for STR-ZA3000ES)
- **Trigger 2 [8.3. TRIGGER 2]** (for STR-ZA3000ES)
- **Trigger 3 [8.4. TRIGGER 3]** (for STR-ZA3000ES)
- **Trigger [8.2. TRIGGER]** (for STR-ZA2000ES/STR-ZA1000ES)
  USE, ---
- **Test Picture [8.5. TEST PICTURE]** (for STR-ZA3000ES)
  ON, OFF
- **Test Picture [8.3. TEST PICTURE]** (for STR-ZA2000ES/STR-ZA1000ES)
  ON, OFF
- **Save/Load [8.6. SAVE/LOAD]** (for STR-ZA3000ES)
- **Save/Load [8.4. SAVE/LOAD]** (for STR-ZA2000ES/STR-ZA1000ES)
- **Settings Lock [8.7. SETTINGS LOCK]** (for STR-ZA3000ES)
  ON, OFF
- **Settings Lock [8.5. SETTINGS LOCK]** (for STR-ZA2000ES/STR-ZA1000ES)
  ON, OFF

9. Easy Setup [9. EASY SETUP]

- **Auto Calibration [9.1. AUTO CALIBRATION]**

- **Internet Setup [9.2. INTERNET SETUP]**

*1 You can select this setting only when you have performed Auto Calibration and saved the settings.

*2 You can only select this parameter if [SP PATTERN] is not set to a pattern with surround back and front high speakers.

*3 XXX represents a speaker channel (FRONT, CENTER, SURROUND, FRONT HIGH).

*4 XXX represents a speaker channel (FRONT L, FRONT R, CENTER, SURROUND L, SURROUND R, SUR BACK L, SUR BACK R, SUR BACK, FRONT.HIGH.L, FRONT.HIGH.R, SUBWOOFER).

*5 Some parameters or settings may not be available depending on the speaker pattern setting.

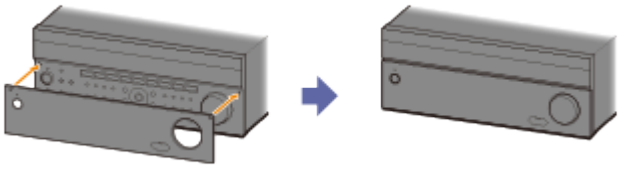
*6 You can only select this parameter if the speaker is set to [SMALL].

*7 You can only select this parameter if you select [HD-D.C.S.] as the sound field.

*8 x.xxx represents the version number.

Attaching the front cover onto the front panel

Attach the front cover to prevent misoperations.



Removing the front cover from the front panel

Remove the front cover from the bottom side.

Note

- Do not forcibly remove the front cover from the top side since it is firmly attached. Doing so may cause injury or damage the front cover or the receiver.

Selecting the FM reception method (FM Mode)

Set FM mode to monaural.

1. Select [Listen] - [FM TUNER] from the home menu.
   If the Simple mode screen appears, switch to the Full mode screen.

2. Select a station on the FM band.
3. Press OPTIONS.
4. Select [FM Mode] from the options menu.
5. Select [Monaural].

Note

- You can set FM mode in the options menu if the frequency indication is selected in step 3.

Hint

- You can also set FM mode with [Tuner Setup] in the System Setup menu.